THYROID DYSFUNCTION AND ITS ASSOCIATED FACTORS AMONG LATE ADOLESCENT GIRLS- A CROSS SECTIONAL STUDY IN SALEM DISTRICT OF TAMILNADU- 2017

Dissertation submitted to

THE TAMIL NADU Dr. MGR MEDICAL UNIVERSITY

In partial fulfilment of the requirements for the degree of

M.D. COMMUNITY MEDICINE

DEGREE EXAMINATION

BRANCH- XV

THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY

CHENNAI – 600 032

TAMILNADU

MAY 2018

BONAFIDE CERTIFICATE

This is to certify that the dissertation titled "**Thyroid Dysfunction and Its Associated Factors Among Late Adolescent Girls- A Cross sectional study in Salem District of TamilNadu-2017**" is a bonafide work carried out by **Dr.N.P.RUBESH SHARMA** Post Graduate student in the Institute of Community Medicine, Madras Medical College, Chennai-3, under my supervision and guidance towards partial fulfilment of the requirements for the degree of M.D. Branch XV Community Medicine and is being submitted to The Tamil Nadu Dr. M.G.R. Medical University.

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DECLARATION

I, solemnly declare that the dissertation titled **"Thyroid Dysfunction and Its Associated Factors Among Late Adolescent Girls- A Cross sectional study in Salem District of TamilNadu-2017",** was done by me under the guidance and supervision of **Dr. Joy Patricia Pushparani , M.D.,** Professor, Institute of Community Medicine, Madras Medical College, Chennai-3. The dissertation is submitted to The Tamil Nadu Dr. M.G.R. Medical University towards the partial fulfillment of the requirement for the award of M.D. degree (Branch XV) in Community Medicine.

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SPECIAL ACKNOWLEDGEMENT

I gratefully acknowledge and sincerely thank Professor **Dr. R. NARAYANA BABU, M.D., DCH.,** Dean, Madras Medical College and Rajiv Gandhi Government General Hospital, Chennai, for granting permission to utilize the facilities of this Institution for the study.

ACKNOWLEDGEMENT

I express my warmest respects and profound gratitude to **Dr. T.S. SELVAVINAYAGAM, M.D., D.P.H., D.N.B.,** Director, Institute of Community Medicine, Madras Medical College, for for granting permission to utilize the facilities of this Institution for the study.

I would like to extend my sincere and profound gratitude to my guide **Dr. JOY PATRICIA PUSHPARANI, M.D.,** Professor and co guide **Dr.S.SUDHARSHINI M.D.,** Assistant Professor, Institute of Community Medicine, Madras Medical College, Chennai-3 for having been the ever present guiding and driving force behind my study and without whom this study would not have taken its present shape.

I extend my sincere gratitude to, **Dr. R. ARUNMOZHI, PhD., M.D.,** Associate Professor, Institute of Community Medicine, Madras Medical College, for her guidance, encouragement, insightful comments and suggestions.

I extend my sincere thanks to the **Dr. A. CHITRA** Associate Professor, Institute of Community Medicine, Madras Medical College, for her guidance, encouragement, insightful comments and suggestions.

I extend my sincere gratitude to **Dr.R.RAMASUBRAMANIAN M.D., Dr.THIRUMALAI KUMAR M.D., Dr. VIJAYA KUMAR M.D.,** and **Dr. S.M. BALAJI**, M.D.,Assistant Professors Institute of Community Medicine, Madras Medical College, for their for their extended support and encouragement during the course of this study.

I extend my sincere gratitude to **Dr.M. MANIVANNAN DPH, Dr. J. KALPANA DPH, Dr. KARTHIKEYAN DPH, Dr. VIJAYA CHITHRA DPH,** Tutors Institute of Community Medicine, Madras Medical College for their extended support and encouragement during the course of this study.

I show my warm respects to the members of the Institutional Ethical committee for approving the study and the **Director of Public Health**, **Tamil Nadu, the Deputy Director of Health Services, Salem the Chief educational officer, Salem district, the principal** of the corresponding educational institutions for giving permission to conduct the study.

I would like to thank the study participants who participated in the study and their parents for having trust and participation in the study.

I would like to thank **Dr. G. PRAKASH**, Associate Professor of Department of Diabetology, Salem Govt MK Medical College, for giving technical advice and support to conduct the camp and collect the data and validating the questionnaire and valuable suggestions regarding the practical issues of research which is something beyond the textbooks

I would like to thank the laboratory technicians who were involved collection of blood samples, **Sister NIRMALA** ,VHN, ASHA, NCC guide and NCC students of corresponding institutions for helping me to conduct the camp.

I would like to acknowledge Thyrocare laboratory for analyzing the sample and giving the results in time.

I would like to always remember with extreme sense of thankfulness, the cooperation and constructive criticism shown by my fellow post graduate colleagues and friends.

I would also like to specially thanks my family members for the moral support and encouragement extended by them which gave fulfillment to the dissertation work.

Above all, I would like to thank the Almighty for providing this opportunity, without whose grace nothing could be accomplished.

ABBREVIATIONS

1.	BMI	-	Body Mass Index
2.	CI	-	Confidence interval.
3.	DMLT	-	Diploma in medical laboratory technology.
4.	FT3	-	Free or unbound Triiodothyroxine.
5.	FT4	-	Free or unbound Tetraiodothyroxine.
6.	ICCIDD	-	International council for Control of Iodine Deficiency disorder.
7.	NIDDCP	-	National Iodine Deficiency Disorders Control Programme
8.	NCD	-	Non Communicable diseases.
9.	PSS	-	Perceived Stress Scale.
10.	SPSS	-	Statistical Package for the Social Sciences.
11.	TSH	-	Thyroid stimulating hormone.
12.	UNICEF	-	United Nations Children's Fund
13.	WHO	-	World Health Organisation

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INTRODUCTION AND JUSTIFICATION

BUTTERFLY GLAND FOR BETTER LIFE

The burden of non communicable disease is so high causing 40 million deaths each year, equivalent to 70% of all deaths globally[1]. Thyroid disorders are one among them and global burden was estimated to be more than 2 billion and in India it was estimated to be more than 40 million [2]. Internationally, the importance given to non communicable diseases has increased. Thyroid disorders should also be addressed as they can lead to many serious health problems. The morbidities are so varied and chances of developing them are high as, "Thyroid hormones play a crucial role as a regulator of metabolism and organ functions, nervous system myelination, brain development in fetus and neonates, growth and puberty in children"[3] and also "have an effect on number of metabolic parameters such as the up-regulation of carbohydrate and lipid metabolism and production of adipokines, insulin sensitivity, oxidative stress and BMI or waist circumference which are associated with risk factors of other non communicable disease like cardio vascular disease, diabetes, stroke, anemia etc"[4-7]. So any impairment in the production of thyroid hormones or their function can lead to serious health problems.

Thyroid dysfunction is an impairment of normal functioning of the thyroid gland causing abnormal production of thyroid hormone[7]. Excess hormone production results in hyperthyroidism, while insufficient production leads to hypothyroidism. Thyroid disorders could be due to genetic, environmental or dietary factors[8]. Environmental and dietary factors causing thyroid disorder are called as goitrogens[7]. Previously in India the thyroid disorders were thought to be endemic

and restricted to the Himalayan and Sub-Himalayan region later it was found that the most common cause of thyroid disorder was iodine deficiency and the thyroid disorders are endemic all areas with iodine deficiency[9,10]. Implementing National goitre control program since 1962 later under National Iodine Deficiency Disorder Control Programme (NIDDCP) and legislations such as banning non-iodised salt production had helped in reduction of iodine deficiency disorder and thereby goitre[11,12]. According to the survey conducted all over the country by NIDDCP, India is still in the transition state towards Iodine sufficient nation as there are pockets of iodine deficiency in some districts[11].

With advancement in diagnostic facility, the number of cases diagnosed to have autoimmune thyroid disorders has increased nowadays[12]. Few studies conducted in the iodine sufficient population had stated that goitre prevalence had come down with effective iodine supplementation but the prevalence of autoimmune thyroid disorders had steadily increased [13-15]. The role of iodine consumption in causing autoimmune thyroid disorders are yet to be analyzed and under research[14]. Certain thyroid disorders and thyroid cancers are likely to be hereditary and familial in origin[7, 8].

Like diabetes and other endocrine disorders, thyroid dysfunction is an iceberg disease and has varied clinical manifestations[16]. It can cause impairment of many organs and affect their function and lead to a wide range of complication like metabolic disorders, cardiovascular disease, cognitive dysfunction like depression, learning disturbance, musculoskeletal disorders, goitre, myxedema, thyroid cancers

and co-morbid conditions like diabetes and hypertension etc. In females thyroid disorder can lead to menstrual irregularities, polycystic ovaries, infertility, it also produces adverse effects during pregnancy like spontaneous abortions, preterm labor, low birth weight, and congenital hypothyroidism[17]. Early diagnosis and appropriate treatment can prevent these long term complications.

Females are more prone to hormonal imbalance as there is constant fluctuations in their hormonal level based on their needs in different stages of life right from birth to childhood to puberty followed by adolescence, adulthood, pregnancy, lactation middle age, pre-menopausal, post menopausal and old age[18-22]. Since early diagnosis and simple treatment of thyroid dysfunctions can prevent long term complications, it is necessary to screen them at every stage of life for thyroid dysfunction and identify the associated factors to plan for the appropriate intervention.

Adolescence is a transition period from child hood to mature adulthood. During that period significant environmental, physiological, cognitive and neurobiological changes occurs in them [23]. Changes that disrupt homeostasis are typically referred to as stressors [24]. The social and environmental challenges faced in adolescence are puberty, school achievement demands, family dynamic shifts and social relationships [25] . The physiological changes occurring in them are puberty, and other morphological changes. The cognitive and neurobiological changes occurring in them are increased reactivity in both the autonomic nervous system (ANS) and hypothalamic–pituitary–adrenal (HPA) axis in response to social factors

and performance stressors as compared to younger children[23]. Both autonomic nervous system and cortisol along with other factors modulate thyroid hormone production[4].

Already evidences are available in literature recommending universal screening of all pregnant women [26, 27] and neonates[28] for thyroid dysfunction. The screening of adolescent girls for thyroid dysfunction should also be recommended so that early diagnosis, appropriate interventions and follow up can be done to prevent the long term complications.

Screening of thyroid disorder

In spite of the new technologies and a lot of diagnostic tests have emerged, focused history to identify the symptoms and risk factors, clinical examination to elicit the signs of thyroid dysfunction followed by estimation of TSH level in the serum remains top in the hierarchy to screen for thyroid dysfunction. Serum TSH level remains the single best test of thyroid function[29]. Thyroid-stimulating hormone testing is the preferred approach because:

1. TSH is central to the negative-feedback system [6].
2. Small changes in serum thyroid function cause logarithmic amplification in TSH secretion [4].
3. The most advanced (third-generation) chemi-luminescent TSH assays can now detect both elevation and significant lowering of TSH levels, and are capable of reliably measuring values <0.1mU/L, thus aiding detection of subclinical thyrotoxicosis [30].

4. A normal TSH value is a sufficient indicator to stop further testing of thyroid function in most case [29].
5. Cost effective [29- 31].

Interpretation of TSH

The reference range of TSH levels given in the kits by the manufacturers of these assays varies. TSH value outside the laboratory reference ranges are considered abnormal[31].

To recommend for universal screening of adolescent girls for thyroid dysfunction the burden of the disease among them should be estimated. There are only few studies which estimated the prevalence of thyroid dysfunction in late adolescent girls.

Salem district was chosen selectively for this study as it was (i) One among the top five populated districts of Tamil Nadu based on the Census 2011[32] having urban and rural areas along with some hilly terrain and (ii) One among the top five districts with high prevalence of goitre based on the NIDDCP survey report 1999[33]. It has been 18 years since the survey and no other study had been done on Thyroid dysfunction in that area.

Objectives of the Study

OBJECTIVES OF THE STUDY

1. To estimate the prevalence of thyroid dysfunction and its sub categories among late adolescent female students of Salem district.

2. To determine the factors associated with the thyroid dysfunction among these late adolescent girls.

Review of Literature

REVIEW OF LITERATURE

Prevalence of thyroid dysfunction

A review of countrywide studies on the thyroid disorders among adolescent and young adults done by N Kochupillai stated **, "**The global burden of the thyroid dysfunction is estimated to be more than 2 billion and in India it is estimated to be 42 million"[(2)].

An institution based cross sectional study conducted among the 1292 Female college students aged from 18 to 24 years, from randomly selected 7 colleges in Madurai district, Tamil Nadu by Kumaravel Velayutham et al in 2015, stated that the prevalence of Thyroid dysfunction was 12.5 % (TSH < 0.4 µIU/ml and > 4.5 µIU/ml), prevalence of low TSH (< 0.4 µIU/ml) was 1.5 %, prevalence of elevated TSH was 11 % where Mild TSH elevation(4.5-10 µIU/ml) was the most common abnormality with prevalence of 9.7 % and significant TSH elevation (> 10 µIU/ml) was found in 1.3 % of the subjects [(34)].

An institution based cross sectional study conducted among 249 female college students from M.L.B girls college, Bhopal, Madhya Pradesh by Padma Bhatia et al in 2016 stated that the prevalence of hypothyroidism estimated using Zulewski' s Scoring criteria for thyroid dysfunction was 11 % and by TSH estimation (TSH more than 5.60 µIU/ml) was 7.6 %.[(35)]

Dinesh Kumar Dhanwal et al in 2016 did an epidemiological study from 11 cities in 9 states of India to estimate the prevalence of hypothyroidism in pregnancy and concluded that there was a high prevalence of hypothyroidism in pregnancy (13.13%). Majority of these hypothyroid pregnant women have subclinical hypothyroidism[36].

In a multicentric survey conducted in 2015 by Indian thyroid society through an agency TNS India to estimate the prevalence of hypothyroidism India in 2,797 subjects aged between 21 to 60 years from 11 towns major cities of India it was found that one in ten adults in India suffered from hypothyroidism, the disease was more prevalent among women, who are three times more likely to be affected by hypothyroidism than men, especially those in the age group of 46-54 year"[37]

In a multi-centric community based cross sectional study done by Ambika Gopalakrishnan Unnikrishnan et al in 2013 in 8 cities of India to estimate the prevalence of hypothyroidism and its geographical distribution among the adult population aged more than 18 years "The overall prevalence of hypothyroidism was 10.95% of which 7.48 % were self reported and 3.47 % were previously undetected , subclinical hypothyroidism was 8.02% and prevalence of hyperthyroidism was 1.94 % .The prevalence of hypothyroidism was lower in the coastal cities when compared to the in-land cities[38].

A community based cross sectional study was conducted by Marwaha *et al* in 2012, to assess the status of thyroid function in Indian adults after two decades of implementing universal salt iodization among 4409 adult (18-90 years of age) from

members of resident welfare associations of 5 residential colonies in Delhi . From the study it was found that the prevalence of clinical goitre estimated by palpation method as per World Health Organisation (WHO), United Nations Childrem's Fund (UNICEF), International council for Control of Iodine Deficiency disorder (ICCIDD) guidelines was 9.6% (13.3% women and 3.3% in men). The prevalence of goitre varied based on sex and age, with more among women and it decreased with increase in age, with the highest prevalence (18.5 %) seen in women in age group 18-29 years. The prevalence of thyroid dysfunction (values outside 0.28–4.2 mIU/L) was 23.03 % and was higher among women (24.7 %) than men (18.2 %). Thyroid dysfunction showed a rising trend with age in both genders. Subclinical hypothyroidism (High TSH with normal FT3 and FT4) was the commonest abnormality encountered and affected 19.3% subjects (15.9% men; 21.4% women). High prevalence of subclinical hypothyroidism was not correlated with either thyroid autoimmunity or iodine intake. The prevalence of overt hypothyroidism (TSH above normal range and FT3 and FT4 below normal range) was 2.5 % (men 1.6 % and female 1.9 %). Hence prevalence of hypothyroidism (TSH above 4.2 mIU /L) was 21.8 %(men 17.5 % and female 23. 3%). Prevalence of hyperthyroidism (TSH below 0.28 mIU /L) was 1.13 % (men 0.7 % and female 1.4 %). The prevalence of goitre and thyroid dysfunction was much high[39].

A community based cross sectional study conducted among 3069 adults (aged> 18 years) residing in urban coastal area of central Kerala by Usha Menon et al in 2009 stated that, the median iodine excretion was 211.4 mcg/l (iodine sufficient),total goitre prevalence by clinical examination was 12.2 % , the

prevalence of thyroid dysfunction was 19.6 %, and prevalence of subclincal hypothyroidism was 9.4 % . Anti TPO antibodies and anti TG antibodies were present in both groups having normal (9.5 % and 8.5 %) and abnormal thyroid function (46.3 % and 26.8 %). The prevalence of thyroid dysfunction, goitre and autoimmunity were high even among iodine sufficient population [40].

In a community based cross sectional study named Colorado thyroid disease prevalence study conducted by Gay J Canaris et al in 1995 to study the abnormal thyroid function and its relation with symptoms and lipid level among 25862 participants , the prevalence of abnormal TSH (outside 0.3-5.1 mIU/L) was 11.7 % , elevated TSH levels (above 5.1 mIU/L) was 9.5%, and the prevalence of decreased TSH levels (below 0.3- 5.1 mIU/L) was 2.2 %. Among those who took medication for thyroid dysfunction only 60 % of them had TSH within normal range. The prevalence of hypothyroidism increased statistically significantly with increase in age in both men and women and was statistically significantly more prevalent in women than men in all the age group, with 4 % of women in age group (18- 24) and 21% of women in age group > 70 years had hypothyroidism . Symptoms were reported more in hypothyroid as well as euthyroid individuals, and was reported more in overt hypothyroidism than subclinical hypothyroidism, the sensitivity and positive predictive value of individual symptoms were low and the likelihood ratio was modest. 9.9 % of the thyroid dysfunction were newly recognized by that study and had gone unrecognized previously [41].

In a prospective hospital based observational study done by Amitabh sing et al in 2016 to estimate the prevalence, clinical profile, aetiology and associated co morbidities of thyroid dysfunction in children, 498 pediatiric patients less than 12 years attending a tertiary hospital were studied, among them the proportion of thyroid dysfunction was 13.01 %. Among the those with thyroid dysfunction hypothyroidism constituted 93.8 % and hyperthyroidism constituted 6.1 % , not all the patients who had thyroid dysfunction had goitre only 15. 3 % of them had goitre, proportion of patients using iodized salt (by history) was 90.6 %. All the patient who had hyperthyroidism reported of using iodized salt but only 68.9 % of those who had hypothyroidism reported of using iodized salt. Family history of thyroid disorder was reported by 6.5 % of the hypothyroid patients and none of the hyperthyroid patients. The most common clinical feature among hypothyroid patients was short statute followed by lethargy. In the follow up of one year with treatment with levothyroixen 54 % of people with hypothyroidism had normalization of thyroid function and 3.3 % developed features of hyperthyroidism and 50 % of those who had goitre had decreased neck swelling 55 % achieved normal growth velocity [(42)].

In a hospital based cross-sectional study done by Arindam Bose et al in 2015 to estimate the prevalence of thyroid disorders in Malva, 28,677 suspected thyroid patient of Choithram Hospital and Research Centre, Indore were studied .The proportion of patients with thyroid dysfunction (0.35-4.94μIU/ml) was 15.35 %, and patients with hypothyroidism was 13.58% , and patients with hyperthyroidism was 1.79%[(43)].

In a hospital based cross-sectional study done by Rakesh Dhadhal et al in 2015 to estimate the prevalence of hypothyroidism in Udaipur Rajesthan, 300 adult patient (above 20 years) of Geetanjali Medical College & Hospital, Udaipur, referred to the central lab from January 2010 to December 2014. were studied .The proportion of patients using iodized salt (by history) was 90.6 % , with goitre was 65. 33 %, with thyroiditis was 14.67 % and with thyroid malignancy was 5.67 %, thyroid dysfunction (0.35-4.94μIU/ml) was 23.1 % , and patients with hypothyroidism was 13.33% , and patients with hyperthyroidism was 9.77 %. The proportion of goitre was more than thyroid dysfunction. Not all the patients who had goitre had thyroid dysfunction and the vice versa[44].

In a hospital based cross sectional study conducted by Rebecca Abraham to estimate the thyroid dysfunction among women of Pudhucherry in 2009, 505 women who attended the well women health profile clinic of the Pondicherry institute of medical institute were studied and the prevalence of thyroid dysfunction (value outside the range 0.4 -4.5 μIU/ml) was found to be 15.8 % and hypothyroidism (TSH > 4.5 μIU/ml and FT4< 0.620 ng/dL) was 11.5% , of which sub –clinical was 9.5 % (TSH > 4.5 μIU/ml and FT4 > 0.620 ng/dL), and clinical hyperthyroidism (TSH ≤0.1 μIU/ml and FT4 > 1.70 ng/dL) was 1.8% and mild suppressed TSH(0.1 - 0.4 μIU/ml) was seen in 2.6 %.[45]

Hanna, Cheryl E et al in 2002 had stated that thyroid disorders were common in adolescent and with varied presentations most of them suffer from autoimmune thyroid disorders. Most of them are euthyroid, hypothyroidism was common

manifestation and the prevalence were varied based on the different geographical location.[46]

Risk factors for thyroid disorders

Thyroid dysfunction can be caused by genetic, environmental and dietary factors [8]. Genetic factor contribute to 70 % of the risk [8]. The environmental factors such as pesticides, perchlorates, cosmetics, heavy metals, smoking etc can cause thyroid disorders. The dietary factors such as excess iodine intake, naturally occurring goitrogens such as legumes, plants, cabbage, cauliflower, broccoli, turnip, forms of root cassava, soy can interfere with thyroid hormone action. Dietary practices like anorexia, malnutrition, obesity, bulimia, dietary fat intake exert an effect on thyroid gland function [8].

Iodized salt usage

In 1991 "National Iodine Deficiency Disorders Control Programme (NIDDCP) was implemented. Since 1.1.1995 Total ban for selling non-iodised salt for edible purposes is in effect till date [11]. Even after 26 years of implementing the NIDDCP, India is still in a transition zone from a predominant iodine deficient nation to an iodine sufficient population.[11]

According to National Family Health Survey (NFHS-4), the proportion of household using iodized salt at national level was 96.5 % in urban and 91.4% in rural[47] in Salem district was 91 % in urban and 85.7 % in rural[48].

Iodised salt and thyroid dysfunction

Iodine play a significant role in thyroid hormone production and release of thyroid hormones [4-8]. The most common cause of thyroid dysfunction in Iodine deficient area was iodine deficiency [14]. Excess Iodine intake can also cause thyroid dysfunction - Jod Basedow phenomenon and Wolff–Chaikoff effect[8]. The fortification of food with iodine and iodine laden foods like seaweeds, medicines like amiodarone, iodine in contrast dyes may trigger autoimmunity as highly iodinated thyroglobulin were more immunogenic than poorly iodinated thyroglobulin [8,49,50]. The benefit of iodine fortification outweighs the risk of thyroid auto-immunity[8].

In a comparative epidemiological study done by Peter Laurberg et al in 1997 to study the importance of population iodine intake level for the prevalence rate of various thyroid abnormalities in elderly, subjects with relatively high iodine intake from Iceland and low iodine intake from Jutland of Denmark were studied , The prevalence of thyroid dysfunction was low among subjects with low iodine intake from Juteland (13.5 %) than among the subjects with high iodine intake from Iceland (19 %).The prevalence of elevated TSH was more in high iodine intake population from Iceland than low iodine intake population form Jutland and the prevalence of goitre and suppressed TSH was vice Versa.[13]

According to a study conducted by N Konno et al in 1993, on restricting iodine intake for 6-8 weeks for hypothyroid subjects, the elevated TSH, thyroglobulin and low free T4 levels were reversed in the autoantibody negative subjects but not in the positive subjects [15].

Family history

Certain thyroid disorders are familial and hereditary [7,8]. According to the twenty year follow up Whickham study done by Vanderpump M P et al between 1972-93 "Neither a positive family history of any form of thyroid disease nor parity of women at first survey was associated with increased risk of developing hypothyroidism."[51]

Stress

Stress has an effect on autonomous nervous system and adreno-cortical hormone levels[24]. Both autonomous nervous system and cortisol modulate hypothalamo-pituitary- thyroid axis [4]. Females at adolescent period experience many physiological, psychological and environmental and social stressors and are at heightened stress responsiveness [23-25]. The concept of stress had been assessed in many ways using different tools focusing on domains like i) Environmental stressors- assessing adaptation and coping to environmental changes, ii). Psychological -assessing psychological stress appraisal, iii) Biological- assessing the patho-physiological and physiological system involved in stress response[52]. Cohen et al developed a popular tool called 'Perceived stress Scale (PSS)' for measuring psychological stress[53]. Perceived stress scale is simple, had been widely accepted and used globally tool to measure perceived stress[52, 53]. It was a validated tool and had internal consistency of 0.85 (Cronbach α co–efficient) and test retest reliability of 0.85[52]. PSS with ten items was found to be superior than PSS with 14 items (long scale) and PSS with 4 items (Short scale)[52].

Clinical features of thyroid dysfunction

The clinical presentation of thyroid disorders has changed as the autoimmune thyroid disease (AITD) replaces iodine deficiency disorder as the major cause of thyroid dysfunction[12].

Thyroid disorders usually have insidious onset and very slow pathophysiological changes occurs slowly and take several years for clinical manifestations to occur [7,14]. Though some clinical symptoms and signs may indicate the thyroid disorders, it is difficult to identify the classic clinical picture, as symptoms are non specific and often confused with other health problems [54]. The relation between the symptom and the patho-physiology of the thyroid disorder is so complex. It is difficult to diagnose or screen the individuals for thyroid disorder with clinical signs and symptoms alone and forces the clinicians to go for biochemical measures for diagnosis[55]. The clinical manifestation vary based on the environmental factors such as geographical area [11, 38]; host factors such as age, sex[39], dietary pattern[8], behavior and life style, genetic predisposition etc; nature of the thyroid disorders- Hypothyroidism- primary and secondary, clinical and subclinical; Hyperthyroidism- primary and secondary, clinical and subclinical [7,56]; Thyroiditis –Hashimoto thyroiditis, Congenital autoimmune thyroiditis (CAT), Juvenile autoimmune thyroiditis (JAT), Graves disease; thyroid malignancies; presence of systemic complications due to thyroid disease and comorbidities - iodine deficiency and malnutrition, diabetes, hypertension, dyslipidemia etc [7].

Goitre

According to WHO, " The prevalence of goitre is quantified using the total goitre rate (TGR), which is equivalent to the number of goitres of grades 1 and 2 detected in a population divided by the total number of individuals examined. TGR of 5% or more in school-age children is used to signal a public health problem." (57 p-1)

Table 1: **Epidemiological criteria for assessing the severity of iodine deficiency based on the goitre prevalence**

Indicator	None	Mild	Moderate	Severe
TGR	0–4.9	5–19.9	20–29.9	30 or more

Source**:** World Health Organization. Goitre as a determinant of the prevalence and severity of iodine deficiency disorders in populations 2014.

Prevalence of goitre world wide

From the studies conducted in the past the it was estimated that the global goitre prevalence was more than 2 billion with more than 40 million in India[(2)]

Prevalence of goitre in India

In a country wide study conducted across 19 states of India by R.k Marwaha et al in the year 2000, overall prevalence of Goitre was 28.7% among healthy adolescent females (age 10-18 years). The prevalence among girls aged more than 15 years was 27%. Prevalence of Hahsimoto thyroiditis in older girls (more than 15 years of age) was high (6.6%) than in younger ones (4.2%). The prevalence of thyroid dysfunction was high among girls with autoimmune thyroid disorder. Thyroid autoimmunity might have been the cause for the high prevalence of goitre.

Those from poor socioeconomic background had a significantly higher prevalence rate (31.9%) compared with girls from higher socioeconomic status (23.8%) .[58]

Prevalence of goitre in Tamil nadu

According to NIDDCP goitre survey report, goitre was prevalent in all the districts of Tamil Nadu. Eighteen districts had prevalence of more than 10%. Ramanathapuram district had the highest prevalence of about 18% and Karur district had the least prevalence of about 3.6%. The prevalence of goitre in Salem district was 12.5% [33].

Association between Goitre and Thyroid dysfunction

According to the historic famous twenty year follow up Whickham study done between 1972-93, the presence of goitre at either survey was not associated with any clinical or biochemical evidence of thyroid dysfunction. However, among women, association between the development of a goitre and thyroid-antibody status was found only at follow-up, though not initially."[51]

Not all subjects with thyroid dysfunction would have goitre and vice versa. Goitre can be the most common manifestation among those with autoimmune thyroid disorder [44, 58]

Menstrual history

In a study done by Praveen Kumar Pathak et al in 2014 to assess the secular trends in age at menarche in India , the mean age at menarche among Indian women was 13.76 years (13.75-13.77) which varied based on the area of residence,

geographical region, linguistic groups, educational status, wealth, caste and religious affiliations.[59]

In a population based study done by Franco Rigon et al in 2012 to study the menstrual pattern and menstrual disorders among adolescent of Italy, 4892 subjects were analyzed "the mean age at menarche was 12.4 (±1.3) years , 3 % had menstrual interval less than 21 days , 3.4 % had menstrual interval greater than 35 days and 19 % of them had heavy blood loss"[60].

In a study done by M.K.C Nair et al in 2011, 21.1 % of the adolescent girls of Thiruvanathapuram city, Kerala , reported menstrual disorders and only 11.5 % of those with menstrual disturbance had sought treatment[61].

Association between thyroid dysfunction and menstrual disturbance

In a study done by Ajmani Nangia Sangita et al in 2016 to estimate the prevalence of thyroid disorder and its correlation with menstrual disorder among women, 100 women aged between 15 and 45 years from Kasturba hospital ,Delhi were studied. Of them, 50 women with menstrual abnormality were in study group and 50 women without menstrual abnormality were in control group, 44 % of the study group had thyroid disorders of which 20 % of them had subclinical hypothyroidism , 14 % had overt hypothyroidism , and 8 % had hyperthyroidism and was statistically significantly higher than the control group[62].

Thyroid dysfunction can adversely affect the reproductive health in both men and women. In women hypothyroidism cause menstrual disturbances, the most

common being dysfunction uterine bleeding, menorrhagia, heavy bleeding during menstrual period and hyperthyroidism can cause amenorrhea, oligomenorrhoea, decreased ovarian reserve[63].

BMI

According to NFHS-4, the percentage of women aged between 15-49 years whose BMI below normal (< 18.5 kg/m^2) at national level was 15.5% in urban and 26.7 % in rural [47], and in Salem district was 11.2 % in urban and 12.8 % in rural[48]. The percentage of women aged between 15-49 years whose BMI above normal (≥25.0 Kg/m^2) at national level was 31.3% in urban and 15 % in rural[47] in Salem was 35.2 % in urban and 23.8 % in rural[48].

Association between BMI and Thyroid dysfunction.

Thyroid hormones play a regulatory role in carbohydrate and lipid metabolism. Thyroid dysfunction can predispose to obesity and other cardiovascular disease risk factors[4,5]. Hypothyroidism cause weight gain in spite of decreased appetite and hyperthyroidism can cause weight loss in spite of increased appetite[6,7]. Obese people tend to have higher serum TSH level in spite of normal thyroid gland. Small difference in serum TSH level was associated up to 5 kilograms difference in body weight. The obese people with hypothyroidism tend to weight loss with thyroid hormone replacement therapy [64].

In an institution based cross sectional study done by M. H. Eftekhari et al in 2007 among 227 high school participants between age 12 years to 21 years from Lar

province of South of Iran, girls with BMI ≥ 25 Kg/ m^2 had higher serum TSH concentration than subjects with BMI < 25 Kg/ m^2.[65]

Lacunae in knowledge

Most of the studies were hospital based studies and were done either among the pediatric age group or among adults of age groups above 18 years. In India among the thyroid disorders only goitre has been properly addressed as a public health problem, that too under the spectrum of Iodine deficiency disorder. The prevalence of thyroid dysfunction, its risk factors and clinical factors among the late adolescent females was unknown.

Materials & Methods

MATERIALS & METHODS

Study Design **:** An institution-based cross sectional study in the field.

Study Place **:** Educational institutions of Salem district.

Study Population **:** Late adolescent female students (15-19 years) in Salem district.

Study Duration **:** December 2016 to August 2017.

Sample Size Calculation:

The sample size was calculated using Abramson and Gahlinger formula for single proportions, $n = \frac{(Z_{\alpha}{}^2) \times p \times q}{d^2}$ X design effect, where,

n : minimum sample size,

Z_{α} : standard normal deviate corresponding to 95% confidence interval (= 1.96)

p : Proportion in target population estimated to have a particular characteristic. q= (1-p)

d : Relative precision (desired or maximum allowable difference from true proportion)

p = proportion of the subjects estimated to have thyroid dysfunction was 12.5% based on the pilot study conducted among 96 students. 12 students had abnormal TSH level. They were not included in the main study.

A study conducted among female college students in Madurai district "**Prevalence of thyroid dysfunction among young females in a South Indian population"** also had reported the prevalence of thyroid dysfunction as 12.5% (34).

Hence, with p=12.5%, relative precision being 20% of **p**, design effect of 1.5 and keeping 10% as sample excess, the sample size was calculated to be 1111.

Sample size (n) $= \frac{1.96 \times 1.96 \times 12.5 \times 87.5}{(2.5)^2} \times 1.5$

$= 673 \times 1.5 = 1009$

With 10% sample excess = 1010+101; Calculated Sample size = 1111 (~ 1110)

Sampling method: Multistage sampling was done as follows:

The required sample size was stratified into rural and urban population based on the rural and urban population proportion according to census 2011.The total population of Salem district is 3,482,056 (Rural- 49.05% and Urban-50.95%) [32].

Further sampling was done as shown in figure 1.

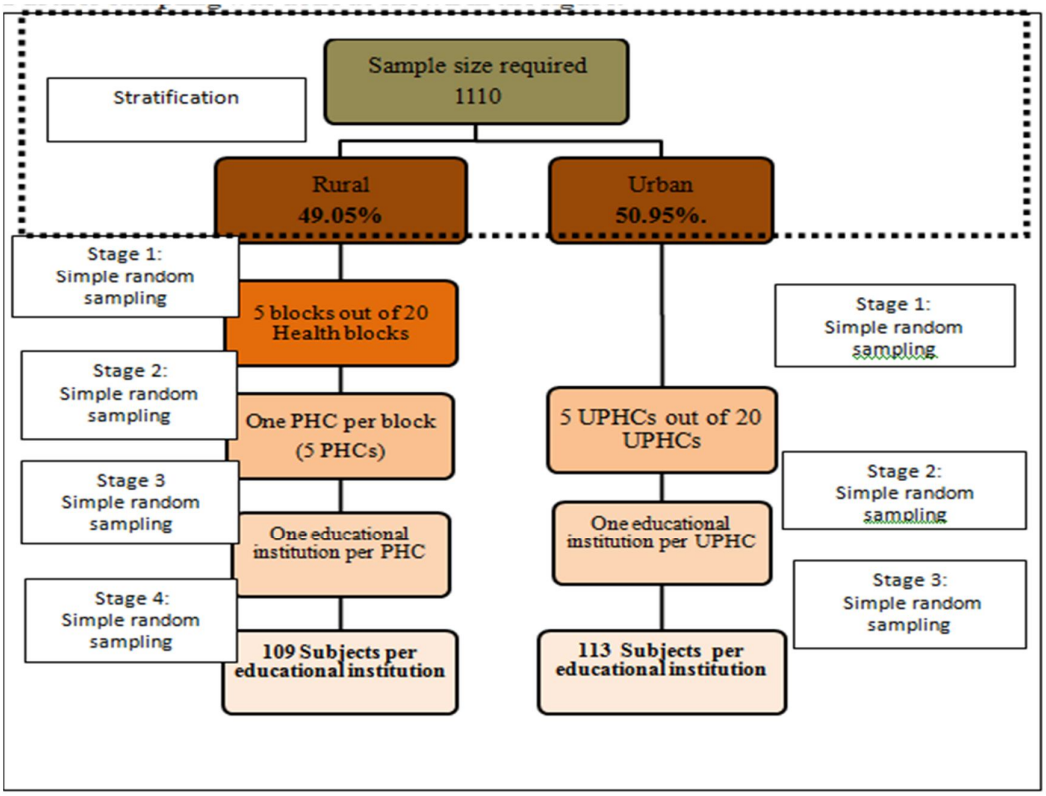

Figure 1. Multistage sampling

Rural

- **Stage 1**: **Selection of Health block**: five Health blocks were randomly selected from the name list of the Health blocks in Salem HUD using the computer generated random number using MS Excel sheet.
- **Stage 2**: **Selection of Primary Health Centre (PHC)**: One PHC was selected from the name list of PHC with higher secondary school or college with female students in the selected health block by simple random sampling (lottery method).
- **Stage 3: Selection of an Educational institution (higher secondary school or college with female students)**: One educational institution was selected from the name list of educational institutions in the selected PHC area by simple random sampling (lottery method).
- **Stage 4**: **Selection of the individual subjects**: List of students in the age group (15- 19 years) was obtained from the attendance list of the educational institution. Each student was assigned a number out of them 125 students were randomly selected using computer generated random number using MS Excel.

Urban

- **Stage 1**: **Selection of Urban PHC**: Five UPHCs were randomly selected from the list of 20 urban PHCs in Salem district using the computer generated random number using MS Excel sheet.
- **Stage2: Selection of an Educational institution:** Same as that done in rural area.
- **Stage 3: Selection of the individual subjects:** Same as that done in rural area.

Inclusion Criteria:

1. Late adolescent girls (15-19 years) attending schools and colleges of Salem district.

Exclusion Criteria:

1. Those who were not available at the time of data collection.
2. Those who were staying in hostel and those who did not belong to the corresponding health block.
3. Those who gave history of suffering from any acute febrile illness.
4. Those who did not give assent or produce parent's consent.
5. Those who did not come with overnight fasting at the time of blood sample collection.

Study Tool:

(i) A semi structured questionnaire

(ii) Clinical examination using weighing machine, stadiometer, BP apparatus and

(iii) Biochemical test: TSH estimation.

The questionnaire was designed and translated in local language and retranslated to assess the content validity and the structural validity was done by review of literature, face validation by experts from Endocrinology department and Community Medicine of Madras Medical College. It had two parts:

Part I: The Interview schedule included the information on socio-demographic profile and history on clinical symptoms pertaining to hypothyroidism and hyperthyroidism, personal history of thyroid disorder, treatment history, menstrual history, family history of thyroid disorder, usage of iodized salt etc , clinical examination and TSH estimation (Annexure-I).

Part II: A Self administered questionnaire translated in local language to measure perception of stress by the subject using Perceived Stress Scale (PSS) (Annexure-I)[53].

Data collection

The data collection was done after obtaining ethical approval from the Institutional ethics committee, official permission to conduct the study from the Director of Public Health- Tamil Nadu, the Deputy Director Health Services – Salem district, the Chief Educational Officer - Salem district and the Principals of the respective educational institutions (Annexure II-V).

Written Informed consent was obtained from the participants aged above18 years. In case of minors (age <18 yrs) consent was obtained from the parents / Guardians and assent from the students (Annexure VI).

The data collection activities were performed over two days per institution.

On the first day, the subjects were chosen as per the sampling method mentioned. The chosen subjects were explained about the study and an information sheet in local language and parent's consent form were given to the subjects. The

history related to the symptoms of thyroid dysfunction and the self administered perceived stress scale was collected on that day itself. The subjects were requested to fill the socio-demographic details, menstrual history, family history, personal history and treatment history if any of thyroid dysfunction with the help of their parents at home and produce the form next day. They were also requested to get information about the iodized salt usage from the manufacture details provided in the packet of the salt being used by them. The next day they were instructed to come to their school early in the morning between 6:30 am and 8:30am with overnight fasting (except water and thyroid medication) along with filled-in questionnaire and Consent form signed by the parents. A well ventilated room (a classroom or an auditorium of the institution) with adequate lighting and floor space was chosen for collecting the blood sample from the subjects and necessary arrangements were made on the first day evening itself.

The team consisting of one doctor (the investigator), a VHN (Village health nurse/ ANM/ ASHA), five qualified laboratory technicians and volunteers (four students not participating in the study from NSS and Physical education teacher or teachers from that respective institution) carried the next day activities.

VHN with assistance from the volunteers recorded the information like height and weight. The orientation was given to them as per Clinical Anthropometric Biochemical (CAB) manual guidelines used for National family health survey-4 survey (2015-16) to measure height and weight.[66]. **Height measurement:** Standing height was measured in centimeters (cm) using stadiometer (Annexure VII).

Weight measurement: By Bathroom scale weighing machine in kilograms. The nearest whole number was taken. Correction to zero was ensured after each reading (Annexure VII).

The doctor verified the consent forms; clinical details filled by the subjects, checked the vitals, examined and recorded the findings of thyroid examination.

Examination of pulse rate and Blood pressure

Was done using electronic BP apparatus as per Clinical Anthropometric Biochemical (CAB) manual guidelines used for National family health survey-4 survey (NFHS 2015-16) [66] (Annexure VIII)

Examination of Thyroid for goitre- Technique

The examination of the thyroid gland was done according to the WHO, UNICEF, ICCIDD guidelines for goitre examination [67]. (Annexure IX).

Collection of venous blood sample

The blood samples were collected from the subjects early morning mostly between 6:30am and 8:30am in the respective school premises itself. Laboratory technicians who had completed DMLT (Diploma in medical laboratory technology) were employed to collect the venous blood sample under the investigator's supervision.

After allaying the anxiety by explaining the procedure, the subjects in a comfortable sitting position, under aseptic precautions phlebotomy was done in a vein of the upper forearm using disposable syringe and 2 ml of venous blood sample

was collected from all study participants. The blood samples were collected in a fresh, clean bar-coded vacutainer tubes with gel provided by the laboratory for the purpose of blood sample collection for TSH analysis. Hemostasis was achieved by applying pressure over the site for few seconds followed by band-aid application.

The blood samples collected were centrifuged locally and transported to laboratory (Thyrocare) and analyzed on the same day of collection. Cold chain was maintained using an ice box.

Emergency Kit

A kit containing adrenaline ampoules, disposable syringes, Normal saline, intravenous infusion set and intravenous catheter had been kept in hand for emergency situations like pain shock was kept in hand. (Few had syncope but recovered spontaneously without any medication within few seconds after making them lie down).

Refreshments were provided for all the subjects.

Waste Management

Biomedical waste produced were blood soiled cotton, disposable syringes and needles. General wastes were syringe covers, biscuit covers and band-aid sticker peel-offs. The wastes were collected in three separate baskets with bags one for soiled cotton, one for used syringes and one for general waste. The needles were collected in the hub cutter. General wastes were disposed at the respective school's

or college's waste collection point. Biomedical waste bags were disposed through respective Government health care facility.

TSH estimation was done by ultra sensitive sandwich chemi-lumiescence immunoassay analyzed using Advia centaur analyzer (Thyrocare). It was a sandwich assay and the method has been standardized as per WHO Reference Standards. The TSH kit was of high accuracy with functional sensitivity of 0.014 micro IU/ml. The laboratory's reference range of TSH for the adolescent age group from 15 years to 18 years is 0.6-4.5 micro IU/ml and for people aged above18 years and non pregnant is 0.3-5.5 micro IU/ml [(68)]. (Annexure X)

The results were given to all those who had abnormal TSH value by email and those subjects who contacted the investigator. Those who had abnormal TSH value were advised to do further investigations and appropriate management from the endocrinology department, Government Mohan Kumaramangalam Medical college, Salem.

Operational Definitions:

Late Adolescence:

According to UNICEF, late adolescent age group include ages between 15-19 years.[(69 p-6)].

Categorization of TSH values:

TSH values were classified into three major categories as normal TSH, elevated TSH and Suppressed TSH. Elevated TSH values were further sub-classified into two categories mild and significant TSH elevation [(70, 34)]

Table 2:Categorization of TSH values

S. No	Category		TSH Value of	
			Subjects age (15- 18 years)	**Subjects aged above 18 years and not pregnant.**
1.	Normal TSH value		0.6 – 4.5 micro IU/ml	0.3-5.5 micro IU/ml
2.	Elevated TSH	Mild elevation	>4.5 micro IU/ml to 10 micro IU/ml	> 5.5 micro IU/ml to 10 micro IU/ml
		Significant Elevation	>10 µIU/ml	>10 µIU/ml
3.	Suppressed TSH		<0.6 µIU/ml.	<0.3 µIU/ml.

Thyroid dysfunction:

Any person having abnormal TSH value or normal TSH value under treatment for thyroid disorder was said to have thyroid dysfunction (70).

Sub categories of Thyroid dysfunction:

Thyroid dysfunction with elevated TSH

Any subject with elevated TSH value was categorized under hypothyroid category. They were further subcategorized into thyroid dysfunction with mild TSH elevation and thyroid dysfunction with significant TSH elevation.

Thyroid dysfunction with suppressed TSH

Any subject with suppressed TSH value was categorized under hyperthyroid**.**

Thyroid dysfunction with TSH under control with treatment

Any subject with normal TSH value under treatment for thyroid disorder was categorized under this group.

Goitre

Any person with grade 1 or grade 2 enlargement of thyroid gland as per WHO/UNICEF/ICCIDD guidelines was said to have goitre [67].

Total Goitre rate was calculated from the formula [67]

$$\mathbf{TGR} = \frac{\textit{Total No of sujects with Grade 1 and grade 2 goiter}}{\textit{Total noof subjects examined}} \times 100$$

Socio-economic status Classification

Modified B.G. Prasad's Socio-economic status scale was applied for both rural and urban population [71]. (Annexure XI)

HEIGHT CATEGORIZATION

Using the WHO reference tool [72] for Height for age for female (5- 19 years) chart for age the subjects were classified into three groups (Annexure XII).

1. Short stature- Height in cm lesser than (-) 2 Standard deviation (SD) from the mean height of the reference population.
2. Normal Height – Height in cm greater than (-) 2 SD from the mean height of the reference population and lesser than (+) 2 SD from the mean height of the reference population.
3. Tall stature- Height in cm greater than (+) 2 SD from the mean height of the reference population.

BMI: Formula: (weight in Kilograms) / (height in meters)^2

With the metric system, the formula for BMI is weight in kilograms divided by height in meters squared. Because height was measured in centimeters, dividing height in centimeters by 100 was done to get height in meters (Annexure XII).

Using the tool [73] WHO reference chart for BMI for age (5-19 years) for girls, the subjects are categorized into five groups.

Table 3: BMI category

Severe Thinness	BMI lesser than (-) 3SD from the mean BMI of reference population.
Thinness	BMI lesser than (-) 2SD from the mean BMI of reference population.
Normal	BMI greater than (-)2 SD from the mean BMI of reference population and lesser than (+)1 SD from the mean BMI of reference population .
Overweight	BMI greater than (+1)SD from the mean BMI of reference population.
Obese	BMI greater than (+2) SD from the mean BMI of reference population.

Menstrual problems

- **Early menarche or Precocious puberty-** onset of menstruation prior to 10 years of age.[74]
- **Delayed Menarche or delayed puberty-** Onset of menstruation at 16 years or above.[74]

- **Irregular periods –** If the length of the cycle is lesser than 21 days (3 weeks) or greater than 42 days (6 weeks). [75]
- **Heavy periods -** A heavy period is one which lasts longer than eight days, saturates the napkin within an hour or includes large clots of blood in the menstrual flow.[75]

Perceived stress scale score (PSS score) [52, 53]

Perceived stress scale with 10 items was used in this study.The score was obtained by reversing the responses (0= 4, 1=3, 2=2, 3=1 and 4=0) to the four positively stated items (items 4, 5,7 and 8) and then summing across all scale items**.** The total sore would be 40**.** The mean score was computed.

Data Analysis:

The data was entered in MS Excel and analyzed using SPSS Version 21. Appropriate descriptive and inferential statistics were used to analyze the data. (Annexure XIII).

Results & Analysis

RESULTS AND ANALYSIS

Socio-demographic details of the study population

Among the adolescent in the age group from 15 to 19 years (late adolescents) of Salem district, 1146 were seen randomly in ten educational institutions among which 3 were Private Schools and 6 were Government schools and 1 was Government College.

Table 4: **Socio-demographic details of the study population**

S.NO	Factors	Category	No of subjects out of 1146 subjects in each category expressed	
			In Frequency	In Percent (%)
1.	Locality	Rural	563	49.1
		Urban	583	50.9
2.	Landscape	Hilly	125	10.9
		Plains	1021	89.1
3.	Socioeconomic status	Class I	62	5.4
		Class II	161	14.0
		Class III	303	26.4
		Class IV	468	40.8
		Class V	152	13.3
4.	Age	15	210	18.3
		16	499	43.5
		17	304	26.5
		18	76	6.6
		19	57	5
5.	Educational institution	School students	1030	89.9
		College students	116	10.1

From table 4, among the 1146 study subjects 50.9% were from urban area, 10.9% were from hilly area, 5.4 %, 14.0 %, 26.4 %, 40.8 %, and 13.3 % belonged to socioeconomic class I, II, III, IV and respectively, 18.3% aged 15 years, 43.5% aged 16 years, 26.5% aged 17 years, 6.6% aged 18 years, 5% aged 19 years , 89.9% and 10.1% were school and college students respectively.

Prevalence of thyroid dysfunction

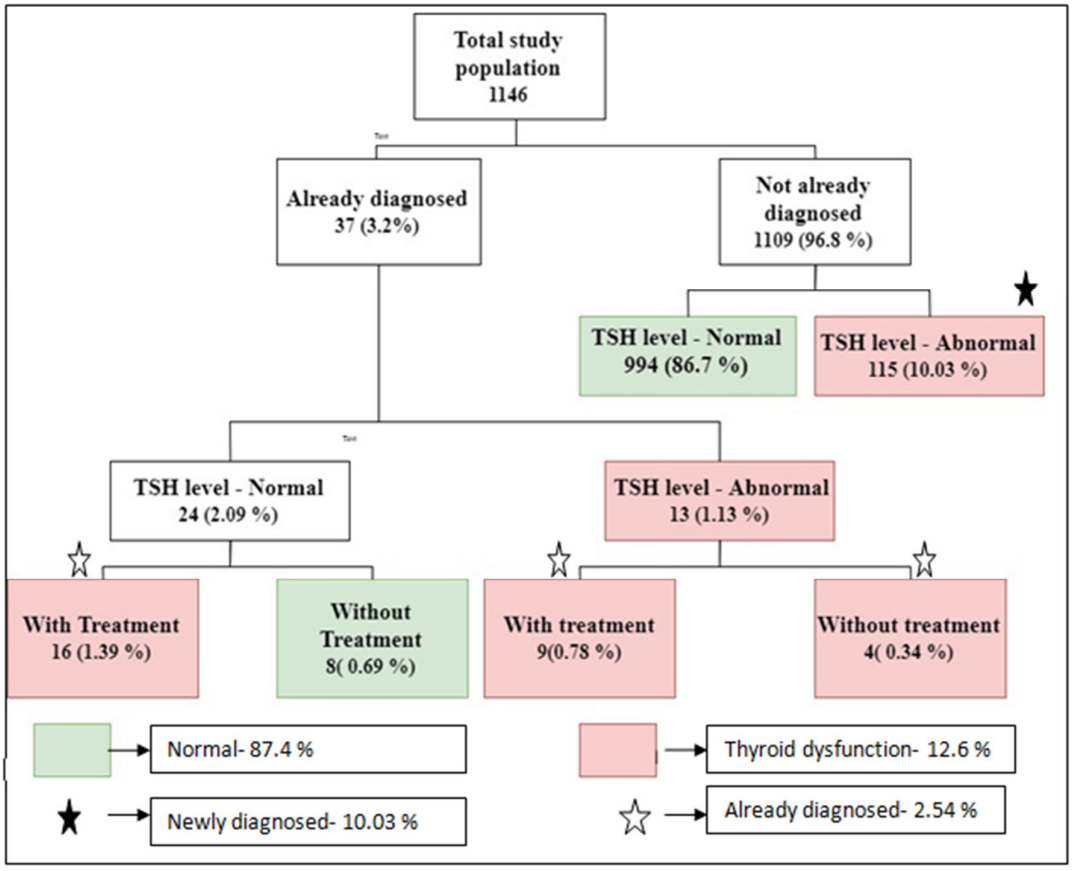

Figure 2:Prevalence of thyroid dysfunction

As shown in figure 2, the overall prevalence of thyroid dysfunction in this study was 12.6 % (10.64% - 14.56 %.), of them 10.03 % were newly diagnosed by this study and 2.54 % were already diagnosed.

Among those who were already diagnosed to have thyroid dysfunction 8 subjects (0.69%) who had normal TSH value without any treatment were categorized as normal.

Prevalence of subcategories of thyroid dysfunction

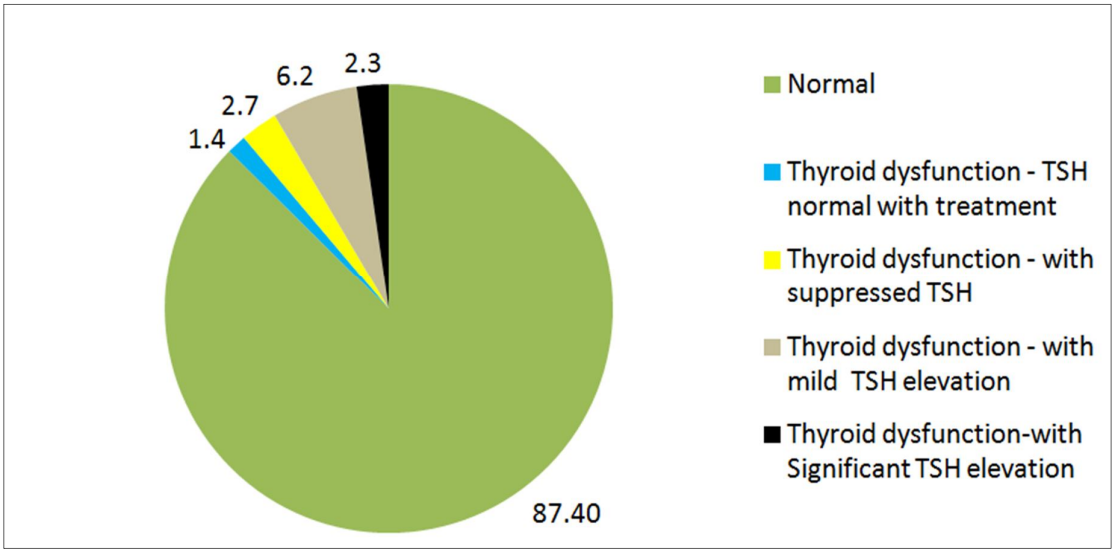

Figure 3 : Prevalence of sub categories of thyroid dysfunction

From the figure3, it was inferred that the prevalence of thyroid dysfunction with Suppressed TSH was 2.7% (1.74 %- 3.66%), thyroid dysfunction with elevated TSH was 8.5% (7.6 % -9.4%), thyroid dysfunction with mild TSH elevation was 6.2% (4.78 %-7.62 %), thyroid dysfunction with significant TSH elevation was 2.3% (1.42 % - 3.18 %) , thyroid dysfunction with normal TSH controlled with treatment was 1.4 % (0.71 % -2.09 %). Above 2/3rd of those who had thyroid dysfunction were having elevated TSH (67.4%) of which mild TSH elevation (49.3%) was the most common abnormality constituting nearly half of the total thyroid dysfunction. About one in five persons with thyroid dysfunction had

suppressed TSH value (21.5%) and significantly high TSH (18.1%). One in ten persons with thyroid dysfunction had their TSH controlled with treatment.

Distribution of the sub categories of Thyroid dysfunction among the subjects already diagnosed to have thyroid dysfunction

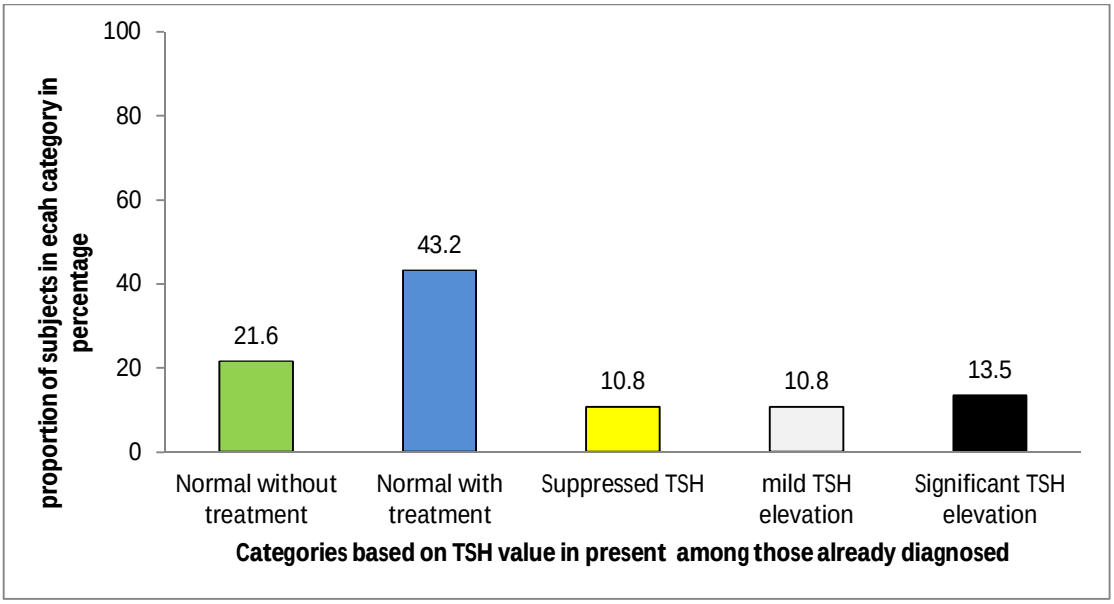

Figure 4: Distribution of the sub categories of Thyroid dysfunction among the subjects already diagnosed to have thyroid dysfunction

From figure 4, among 37 subjects who were already diagnosed to have thyroid dysfunction, 8 (21. 6%) had normal TSH level without any treatment, 16 (43.2 %) had normal TSH level with treatment, 4 (10. 8 %) had suppressed TSH, 4 (10.8 %) had mild TSH elevation and 5 (13.5%) had significant TSH elevation. Hence, among subjects already diagnosed to have thyroid dysfunction only 24 (64.9%) had normal TSH value and elevated TSH (24.3 %) was more common among the girls with abnormal TSH.

Comparison of proportion of subjects with abnormal TSH between those with or without treatment for already diagnosed thyroid dysfunction.

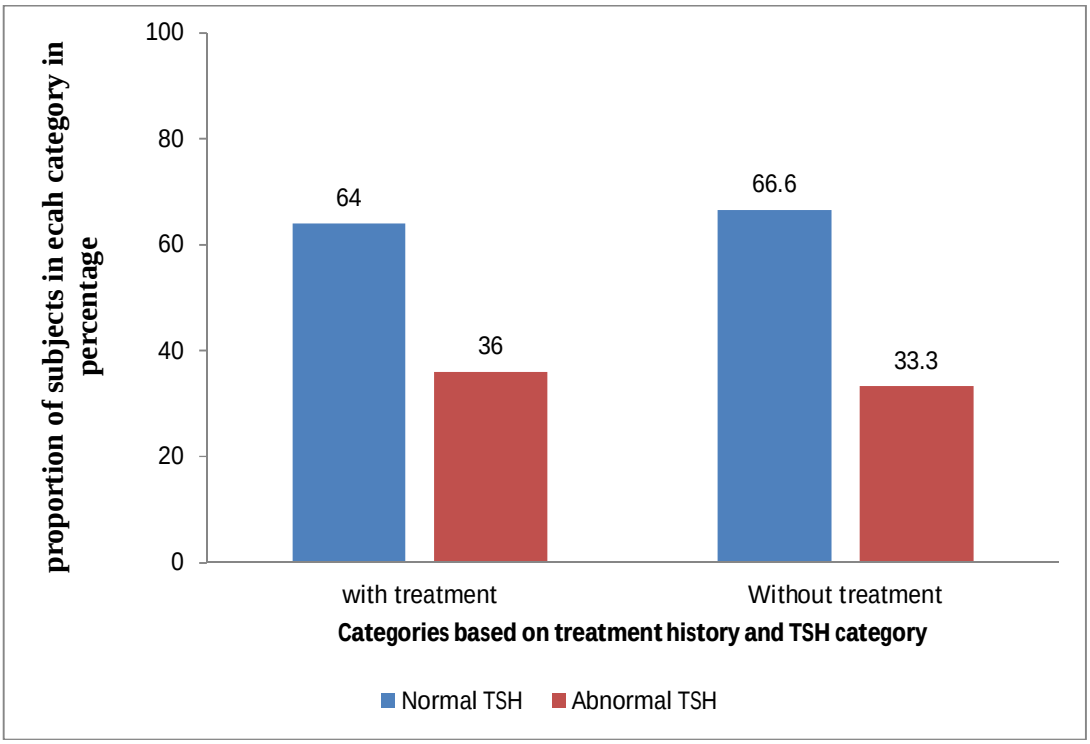

Figure 5: Comparison of proportion of subjects with abnormal TSH between those with or without treatment for thyroid dysfunction

From figure 5, 36 % (9 out of 25) of the subjects who had treatment for already diagnosed thyroid disorder had abnormal TSH and 33% (4 out of 12) of the subjects who had no treatment for already diagnosed thyroid disorder had abnormal TSH and 66.6 % (8 out of 12) who were already diagnosed to had thyroid disorder had normal TSH in the current study without any treatment. There was no statistically significant reduction in proportion of subjects with thyroid dysfunction with treatment.

Comparison of prevalence of thyroid dysfunction and its sub categories between rural and urban population

Table 5: Comparison of prevalence of thyroid dysfunction and its sub categories between rural and urban population

S. No	Parameters	Rural n=563 n(%)	Urban n=583 n (%)	p value	Odds ratio (95% CI)
1	Thyroid dysfunction	70 (12.4)	74 (12.7)	0.89	0.97 (0.6-1.3)
2	Suppressed TSH	9 (1.6)	22 (3.8)	0.02	0.41 (0.1-0.9)
3	Elevated TSH	51 (9.1)	46(7.9)	0.47	1.16 (0.7-1.7)

Chi- square test done.

There was no statistically significant difference in prevalence of thyroid dysfunction between the rural (12.4%) and urban (12.7%) population. But the prevalence of thyroid dysfunction with suppressed TSH was 2.4 times higher in the urban population (3.8%) than rural population (1.6%) which was statistically significant. The prevalence of thyroid dysfunction with elevated TSH was higher in rural population (9.1%) than urban population (7.9%) though there was no statistically significant difference.

Comparison of prevalence of thyroid dysfunction and its sub categories between the hilly and plains

Table 6: Comparison of prevalence of thyroid dysfunction and its sub categories between the hilly and plains

S. No	Parameters	Landscape		p value	Odds ratio (95% CI)
		Hilly	Plains		
		n=125 n (%)	n=1021 n(%)		
1	Thyroid dysfunction	19 (15.2)	125 (12.2)	0.346	1.2 (0.7-2.1)
2	Suppressed TSH	4 (3.2)	27 (2.6)	0.767*	1.2(0.4-3.5)
3	Elevated TSH	8 (6.4)	89 (8.76)	0.380	0.7 (0.3-1.5)

Chi square test done.*fisher's exact test

From table 6, the prevalence of thyroid dysfunction was higher in hilly area (15.1%) than in plains (12.2%), though there was no statistically significant difference. The prevalence of thyroid dysfunction with suppressed TSH was higher in hilly area (3.2 %) than plains (2.6 %) but there was no statistically significant difference. The prevalence of elevated TSH was lower (6.4 %) in hilly area than plains (8.76) which was also not statistically significant.

Comparison of prevalence of thyroid dysfunction and its sub categories between two categories of socioeconomic class

For analytical purpose the subjects were categorized into two groups based on the socioeconomic status (SES) as High SES group – Class I,II & III and low SES - Class IV and V**.**

Table 7: Comparison of prevalence of thyroid dysfunction and its sub categories between two categories of socioeconomic class

S. No	Parameters	SES		p Value	Odds ratio (95% CI)
		Low SES	High SES		
		n=620 n(%)	n=526 n (%)		
1	Thyroid dysfunction	82 (13.2)	62 (11.8)	0.464	1.1(0.8-1.6)
2	Suppressed TSH	17 (2.7)	14 (2.7)	0.933*	1(0.5-2.1)
3	Elevated TSH	59 (9.5)	38 (7.2)	0.165	1.3(0.8-2.0)

Chi square test done. *Fisher exact test

The prevalence of thyroid dysfunction was higher in low socioeconomic status group (13.2%) than high socioeconomic status group (11. 8 %). The prevalence of thyroid dysfunction with suppressed TSH was equal in both the groups. The prevalence of thyroid dysfunction with elevated TSH was higher in low socioeconomic status group (9.5 %) than high socioeconomic status group (11. 8 %).

There was no statistically significant difference in the prevalence of thyroid dysfunction and its sub categories between these two socioeconomic groups.

Comparison of prevalence of thyroid dysfunction and its sub categories between School and college students

Table 8: Comparison of prevalence of thyroid dysfunction and its sub categories between School and college students

S. No	Parameters	Educational institution		p Value	Odds ratio (95% CI)
		School	College		
		n=1030 (%)	n=116 (%)		
1	Thyroid dysfunction	127(12.3 %)	17 (14.7 %)	0.474	0.8(0.4-1.4)
2	Suppressed TSH	29 (2.8 %)	2(1.7 %)	0.762*	1.6(0.4 - 7.6)
3	Elevated TSH	85(8.3 %)	12 (10.3 %)	0.443	0.8(0.4-1.4)

Chi square test done. *Fisher exact test

From table 8, it was inferred that the prevalence of thyroid dysfunction was higher among college students (14.7 %) than school students (12. 3%). The prevalence of thyroid dysfunction with suppressed TSH was lower among college students (1.7 %) than school students (2.8 %). The prevalence of thyroid dysfunction with elevated TSH was higher among college students (10.3 %) than school students (8.3 %). There was no statistically significant difference in the prevalence of thyroid dysfunction and its sub categories between school and college female students.

Prevalence of the Risk factors of thyroid dysfunction

Risk factors addressed in this study were iodized salt usage, family history of thyroid dysfunction and perceived stress.

Table 9: Prevalence of risk factors of thyroid dysfunction

S. No	History	Category	No of subjects	
			Frequency	Percent
1.	Family history of any thyroid disease	Present	80	7.0
		Absent	524	45.7
		Don't know	542	47.3
2	Usage of Iodized salt for cooking	Yes	751	65.5
		No	221	19.3
		Don't know	174	15.2
		Total	1146	100

Family History of Thyroid dysfunction

From table 10**,** of the 1146 study subjects**,** 80(7 %) gave positive family history of thyroid disease in any one of the first degree relatives (parents and siblings) and 1066 (93 %) either didn't know or had no family history.

Iodized salt

From table 9, of the 1146 study subjects**,** 174 (15.2 %) did not know about the iodized salt usage in their home for cooking purpose, so they were excluded for further analysis using the data on iodized salt usage. Among 972 (84.8 %) subjects who know about the iodized salt usage, 751(77.3 %) gave history of using iodized salt and 221(22.7 %) gave history of not using iodized salt. Hence the proportion of people not using iodized salt among the subjects was 22.7 %.

Comparison of proportion of subjects not using iodized salt among different socio-demographic categories

Table 10: Comparison of proportion of subjects not using iodized salt among different socio-demographic categories

S. NO	Socio-demographic groups	Category	Proportion of people not using iodized salt	P value
1	Based on Locality	Rural	119(23.8 %)	0.436
		Urban	102(21.7 %)	
2.	Based on landscape	Hilly area	14(12.8 %)	0.009
		Plains	207 (24.0 %)	
3	Based on Socio economic status	Low SES	122(23.2 %)	0.712
		High SES	99 (22.2 %)	

From table 10, proportion of subjects not using iodized salt for cooking was higher among subjects from rural (23.8 %) than urban(21.7 %), those who belong to low SES group(23.2%) than those belonging to high SES groups(22.2%) though it was not statistically significant. The proportion people not using iodized salt was statistically significantly(p-0.009) higher among the subjects from plains (24.0 %) than from hilly area (12.8 %).

Perceived Stress

Table 11: Descriptive statistics of PSS score

Parameter	Mean score	Median	Minimum Score	Maximum score	Range	Standard deviation	Standard Error
PSS Score	19.42	19	5	37	32	4.87	0.143

From table 11, the mean perceived stress scale score (PSS score) was 19.42 and the median score was 19, the range was 32(5 to 37) the standard deviation was 4.87 and the standard error was 0.143. The score was normally distributed normally among the study subjects.

Comparison of mean PSS score among different socio demographic category

Table 12: Comparison of Mean PSS score among different Socio-demographic categories

S. No	Socio-demographic groups	Category	Mean score ± SD	p value
1	Locality	Rural	19.11± 4.6	0.035
		Urban	19.72± 5.09	
2.	landscape	Hilly area	20.20± 4.7	0.058
		Plains	19.33± 4.8	
3	Socio economic status	Low SES	19.5 ± 5.05	0.390
		High SES	19.3 ± 4.7	
4.	Educational institute	College	19.40 ± 5.57	0.957
		School	19.43 ±4.78	

Independent Sample t test done.

From table 12, mean PSS score was statistically significantly higher among those from urban area than those from rural area (p-0.035). There was no statistically significant difference in mean PSS score between the late adolescent female students based on landscape, socio-economic status and type of educational institute.

Association between the thyroid dysfunction and the risk factors

Table 13: Association between the thyroid dysfunction and the risk factors

S No.	History	Category	Thyroid dysfunction		p value	Odds ratio (95% CI)
			Present n (%)	Absent n (%)		
1.	Family history of Thyroid disorder	Present (n=80)	19 (23.8%)	61 (76.3%)	0.002	2.3 (1.3-4.)
		Absent or Don't Know (n= 1066)	125 (11.7%)	941 (87.4%)		
2.	Iodized salt Usage (Status known in 972 subjects)	Not using (n=221)	27 (12.2%)	194 (87.8%)	0.745	0.9 (0.5-1.4)
		Using iodized salt (n=751)	98 (13.0%)	653 (87.0%)		

Chi square test done.

From table 13, prevalence of Thyroid dysfunction was statistically significantly higher among those with family history of thyroid disorder (23. 8 %) than those who either did not had or don't know the disease status among family members (11.7 %)and was statistically significant. Those with family history of thyroid disorder were at 2.34 times higher odds of developing thyroid dysfunction

than those either had no family history or didn't know the disease status and was statistically significant**.**

From table 13, the prevalence of thyroid dysfunction among those not using iodized salt (12.2 %) was lower than the prevalence of thyroid dysfunction among those using iodized salt (13.0 %) though no statistically significant association could be made.

Thyroid dysfunction with elevated TSH versus risk factors

Table 14: Thyroid dysfunction with elevated TSH versus risk factors

S No.	History	Category	Thyroid dysfunction with elevated TSH		P value	Odds ratio (95% CI)
			Present n (%)	Absent n (%)		
1.	Family history of Thyroid disorder	Present (n=80)	12 (15 %)	68 (85 %)	0.029	2.0 (1.0-3.9)
		Absent or Don't Know (n= 1066)	85 (8 %)	981 (92.0%)		
2.	Iodized salt Usage (Status known in 972 subjects)	Not using (n=221)	20 (9%)	201 (91%)	0.953	1.0 (0.6-1.7)
		Using iodized salt (n=751)	67 (8.9%)	684 (91.1%)		

Chi square test done.

From table 14, the prevalence of Thyroid dysfunction with elevated TSH was statistically significantly (p-0.029) higher among those with family history of thyroid disorder (15 %)than those who either did not have or didn't know the disease status

among family members (8 %). Those with family history of thyroid disorder were at 2.037 times higher odds of developing thyroid dysfunction with elevated TSH than those having either no family history or didn't Know the disease status and was statistically significant.

From table 14, the prevalence of Thyroid dysfunction with elevated TSH was higher among those not using iodized salt (9 %) than those using iodized salt (8.9 %) and was not statistically significant.

Thyroid dysfunction with suppressed TSH versus Risk factors

Table 15: Thyroid dysfunction with suppressed TSH versus Risk Factors

S No.	History	Category	Thyroid dysfunction suppressed TSH		p value	Odds ratio (95% CI)
			Present n (%)	Absent n (%)		
1.	Family history of Thyroid disorder	Present (n=80)	1 (1.3%)	79 (98.8%)	0.719	0.4 (0.05-3.2)
		Absent or Don't Know (n= 1066)	30 (2.8%)	1036 (97.2%)		
2.	Iodized salt Usage(Status known in 972 subjects)	Not using (n=221)	6 (2.7%)	215 (97.3%)	0.879	1.0 (0.4-2.7)
		Using iodized salt (n=751)	19 (2.5%)	732 (97.5%)		

Chi square test done.

From table 15, prevalence of Thyroid dysfunction with suppressed TSH was lower among those with family history of thyroid disorder (1.3 %) than those who

either had no family history or didn't know the disease status (2.8%) and was not statistically significant.

From table 15, there was no statistically significant difference in the prevalence of Thyroid dysfunction with suppressed TSH among those not using iodized salt (2.7 %) and using iodized salt (2.5 %) which was not statistically significant.

Thyroid dysfunction versus Perceived Stress

Table 16: Variation in mean PSS score across those with or without Thyroid dysfunction

S No.	Groups	Mean score ± SD	p Value
1	Having Thyroid Dysfunction	19.80±4.89	0.324
	Not having Thyroid dysfunction	19.37±4.86	
2	Having Thyroid Dysfunction with suppressed TSH	21.54±4.61	0.014
	Not having Thyroid Dysfunction with suppressed TSH	19.36±4.86	
3	Having Thyroid Dysfunction with elevated TSH	19.17±4.76	0.586
	Not Thyroid Dysfunction with elevated TSH	19.45±4.88	

Independent sample t test.

From table 16, mean PSS score was statistically significantly higher among those having thyroid dysfunction with suppressed TSH than those not having suppressed TSH (p- 0.01). But there was no statistically significant difference in the mean PSS score between those who were with elevated TSH and without elevated TSH.

Clinical features of Thyroid dysfunction

The clinical symptoms and signs of hypothyroidism that were addressed in this study were always feeling of tiredness, decreased appetite, rapid weight gain, feeling of muscle weakness, cramps, joint pain, excessive day time sleepiness, difficulty swallowing, hoarseness of voice, constipation, cold intolerance, always feeling low in mood, forgetfulness (memory disturbances), menstrual disturbances like delayed menarche, frequent menstrual cycle and heavy flow during menstrual period, stunting of growth, overweight and goitre.

The clinical symptoms and signs of hyperthyroidism that were addressed in this study were always feeling of excessive hunger, rapid weight loss or no weight gain in the last year, heat intolerance, always feeling nervous, irritable, agitated, palpitation, excessive sweating in palm, forehead, menstrual disturbances like delayed menarche, infrequent menstrual cycle, stunting of growth, low Body mass index.

Table 17: Proportion of Subjects in different TSH categories- among the subjects with clinical symptom of hypothyroidism

S. No	Symptoms	Normal TSH		Elevated TSH n (%)	Suppressed TSH n (%)	TOTAL n (%)
		without treatment n (%)	with treatment n (%)			
1	Always Feeling of Tiredness	378 (84.56 %)	9 (2%)	44 (9.8%)	16 (3.5%)	447 (100 %)
2	Rapid weight gain	147 (82.5 %)	8 (4.4)	15 (8.4 %)	8 (4.4%)	178 (100 %)
3	Decreased appetite	313 (86.7 %)	4 (1.1)	29 (8)	15 (4.1%)	361 (100 %)
4	Feeling of muscle weakness/pain	200 (79.6)	4 (1.5%)	33 (13.1%)	14 (5.5 %)	251 (100 %)
5	Excessive daytime sleepiness	277 (86.8%)	8 (2.5%)	28 (8.7 %)	6 (1.8 %)	319 (100 %)
6	Difficulty in swallowing	51 (80.9 %)	2 (3.1 %)	7 (11.1%)	3 (4.7%)	63 (100 %)
7	Hoarseness of voice	82 (82 %)	5 (5 %)	9 (9 %)	4 (4 %)	100 (100 %)
8	Constipation	119 (89.4 %)	2 (1.5 %)	9 (6.7 %)	3 (2.2 %)	133 (100 %)
9	Cold Intolerance	328 (88.8 %)	8 (2.1 %)	26 (7.04 %)	7 (1.9 %)	369 (100 %)
10	Feeling low in mood	287 (87.5 %)	6 (1.8%)	23 (7.01%)	12 (3.65 %)	328 (100 %)
11	Forgetfulness	444 (86.0 %)	9 (1.74 %)	44 (8.5 %)	19 (3.6 %)	516 (100 %)

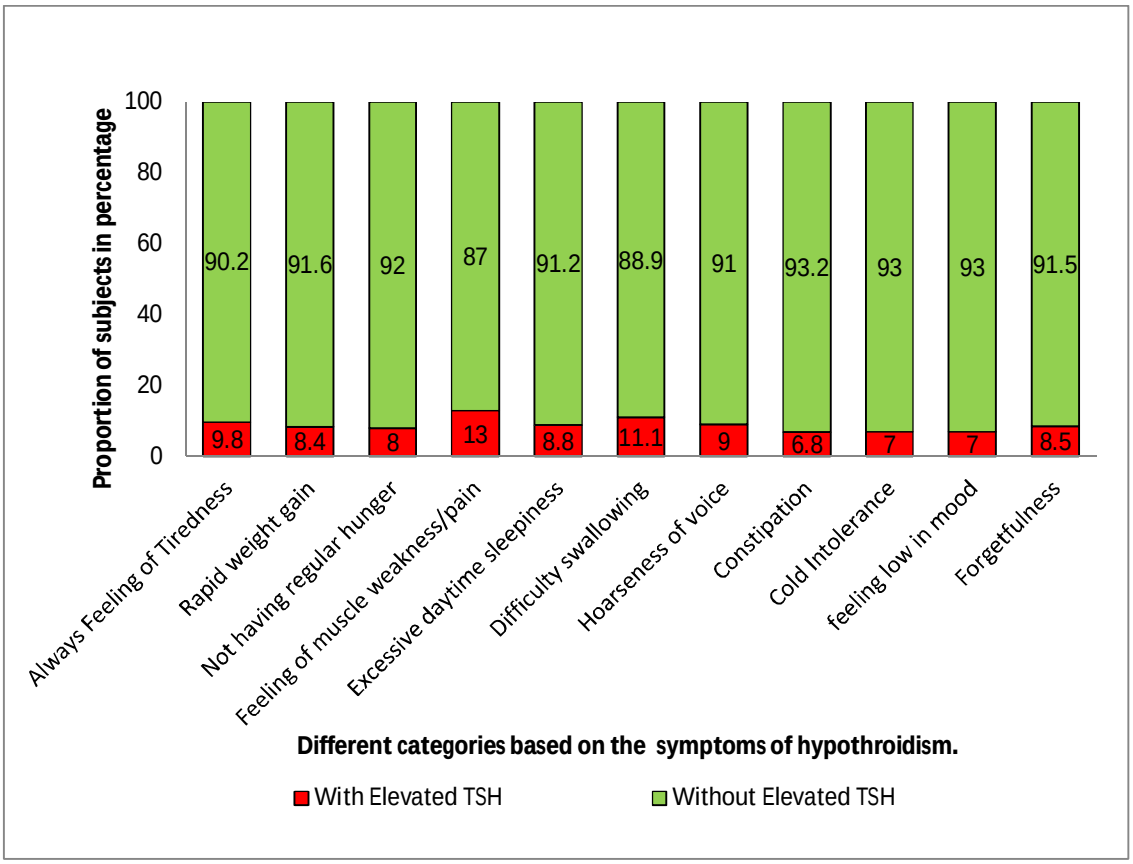

Figure 6 : Proportion of subjects with and without elevated TSH in each category - Categorized based on symptoms of hypothyroidism

From table 17 and figure 6, most of them with the symptoms pertaining to hypothyroidism had normal TSH value and very few had elevated TSH. The proportion of subjects having elevated TSH was maximum among the subjects with musculoskeletal symptoms (13 %) So the positive predictive values of the individual symptoms are very low. The chances of subjects with clinical symptoms of hypothyroidism for having elevated TSH were very low than the chance of not having elevated TSH.

Table 18: Magnitude of Hypothyroid symptom- in study population and its comparison between those with Elevated TSH and Normal TSH

S. No	History	Magnitude in over all subjects (n = 1146) n (%)	Magnitude of symptoms in subjects With		p value	Odds ratio (95% CI)
			Elevated TSH (n = 97) n (%)	Normal TSH (n = 1002) n (%)		
1	Always Feeling of Tiredness	447 (39 %)	44 (45.4 %)	378 (37.7 %)	0.14	1.3 (0.9-2.0)
2	Rapid weight gain	178 (15.5 %)	15 (15.5 %)	147 (14.7 %)	0.833	1.0 (0.5-1.9)
3	Decreased appetite	361 (31.5 %)	29 (29.9 %)	313 (31.2 %)	0.785	0.9 (0.5-1.5)
4	Feeling of muscle weakness/pain	251 (21.9 %)	33 (34.0 %)	200 (20 %)	0.001	2.0 (1.32- 3.21)
5	Excessive daytime sleepiness	319 (27.8 %)	28 (28.9 %)	277 (27.6 %)	0.798	1.0 (0.7-1.7)
6	Difficulty swallowing	63 (5.5 %)	7 (7.2 %)	51 (5.1 %)	0.371	1.4 (0.6-3.3)
7	Hoarseness of voice	100 (8.7 %)	9 (9.3 %)	82 (8.2 %)	0.709	1.1 (0.5-2.3)
8	Constipation	133 (11.6 %)	9 (9.3 %)	119 (11.9 %)	0.446	0.7 (0.3-1.5)
9	Cold Intolerance	369 (32.2 %)	26 (26.8 %)	328 (32.7 %)	0.233	0.7 (0.4-1.2)
10	Feeling low in mood	328 (28.6 %)	23 (23.7 %)	287 (28.6 %)	0.303	0.7 (0.5-1.3)
11	Forgetfulness	516 (45 %)	44 (45.4 %)	444 (44.3 %)	0.843	1.04 (0.7-1.6)

From table 18, it could be inferred that the clinical symptoms of hypothyroidism were more prevalent among the late adolescent female students.

From table 18, the proportions of subjects with clinical symptom pertaining to hypothyroidism such as always feeling of tiredness, feeling of muscle weakness/ cramps, excessive day time sleepiness, difficulty swallowing, hoarseness of voice and forgetfulness were higher among those who had elevated TSH value than those who had normal TSH, although not statistically significant except for the symptom of feeling of muscle weakness/cramps. The odds of developing muscle weakness/cramps was two times higher among those with elevated TSH than those with normal TSH .

From table 18, the proportions of subjects clinical symptom pertaining to Hypothyroidism such as rapid weight gain, not having regular hunger, constipation, cold intolerance, always feeling low in mood were not higher among those who had elevated TSH value than those who had normal TSH , although no statistical significant association could be made between those symptoms and elevated Serum TSH value

The subjects were categorized based on the total number of clinical symptoms said to be present in each subjects.

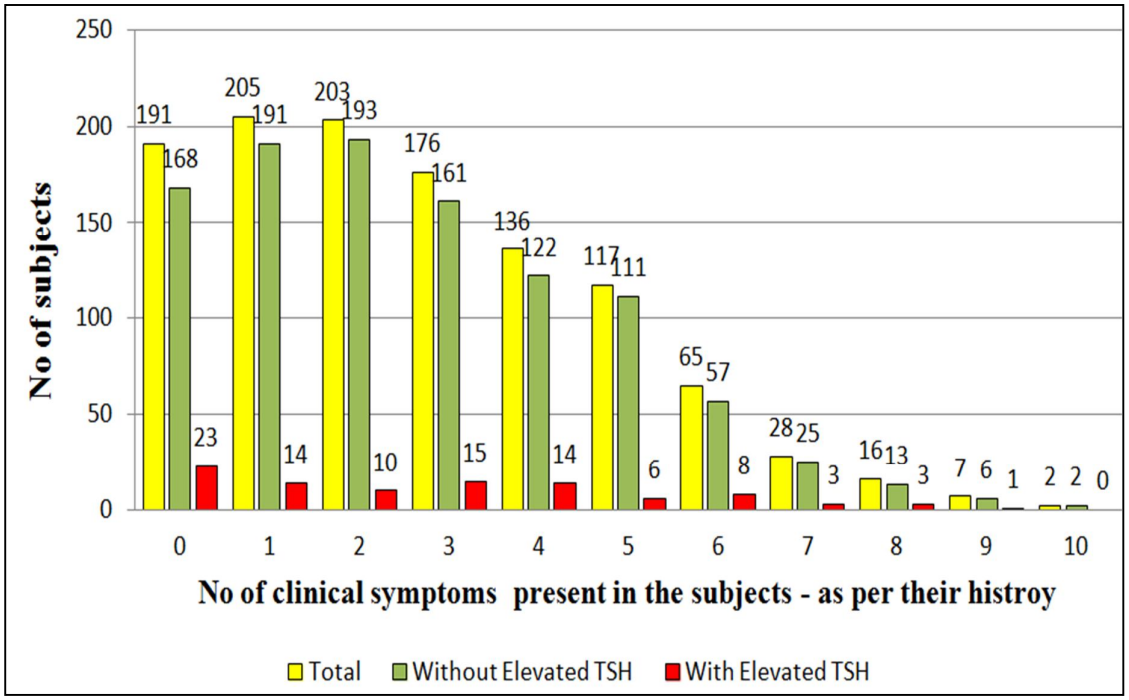

Figure 7: The total number of subjects , number of subjects without and with elevated TSH in each category - categorized based on total number of clinical symptoms present in every subjects as per their history

From figure 7, it can be inferred that, none of them gave positive history of all those 11 symptoms. In 23 out of 191 subjects who gave no history of clinical symptom pertaining to hypothyroidism, TSH was elevated. None of the 2 subjects who gave positive history of 10 clinical symptom pertaining to hypothyroidism had elevated TSH.

Table 19: Proportion of Subjects in different TSH categories- among the subjects with clinical symptom of hyperthyroidism

S. No	Symptoms	Normal TSH		Elevated TSH n (%)	Suppressed TSH n (%)	TOTAL n (%)
		without treatment n (%)	with treatment n (%)			
1	Always Feeling of excessive hunger	178 (85.6 %)	3 (1.4 %)	19 (9.3 %)	8 (3.8%)	208 (100 %)
2	Rapid weight loss or no weight gain	185 (87.3%)	4 (1.9%)	17 (8%)	6 (2.8%)	212 (100 %)
3	Heat intolerance	370 (87.1%)	8 (1.9%)	32 (7.6%)	15 (3.5%)	425 (100 %)
4	Always feeling Nervous /irritable/ agitated	331 (85.1%)	9 (2.3%)	40 (10.3%)	9 (2.3%)	389 (100 %)
5	Palpitations	455 (88%)	9 (1.7 %)	41 (7.9 %)	12 (2.3 %)	517 (100 %)
6	Excessive sweating	307 (85.8 %)	7 (2%)	33 (9.2 %)	11 (3.1 %)	358 (100 %)

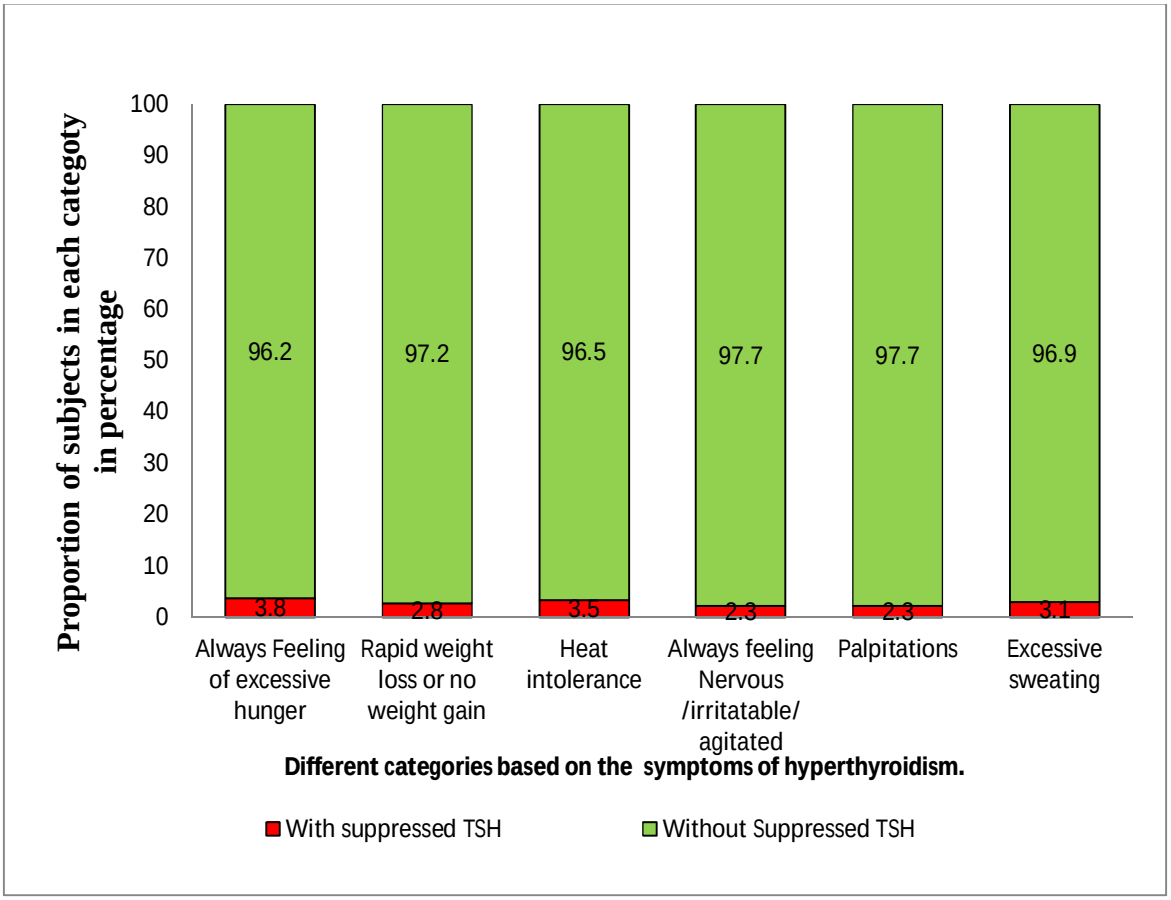

Figure 8: Proportion of subjects with and without elevated TSH in each category - Categorized based on symptoms of hyperthyroidism

From table19 and figure 8, most of them with the symptoms pertaining to hyperthyroidism had normal TSH value and very few had suppressed TSH. The chances of subjects with clinical symptoms of hyperthyroidism for having suppressed TSH are very low than the chance of not having suppressed TSH.

Table 20: Magnitude of Hyperthyroid symptom- in study population, and its comparison between those having Suppressed TSH versus Normal TSH

S. No	History	Magnitude in study population n =1146 n(%)	Magnitude of symptoms in subjects		P Value	Odds ratio (95 % CI)
			Suppressed TSH (n = 31) n (%)	Normal (n = 1002) n (%)		
1	Always Feeling of excessive hunger	208 (18.2 %)	8 (25.8 %)	178 (17.8 %)	0.251	1.6 (0.7-3.6)
2	Rapid weight loss or no weight gain	212 (18.5 %)	6 (19.4 %)	185 (18.5 %)	0.9	1.0 (0.4-2.6)
3	Heat intolerance	425 (37.1 %)	15 (48.4 %)	370 (36.9)	0.19	1.6 (0.8-3.2)
4	Always feeling Nervous /irritable/ agitated	389 (33.9 %)	9 (29 %)	331 (33 %)	0.64	0.8 (.4-1.8)
5	Palpitations	517 (45.1%)	12 (38.7 %)	455 (45.4 %)	0.460	0.7 (0.3-1.5)
6	Excessive sweating	358 (31.2 %)	11 (35.5 %)	307 (30.6)	0.565	1.2 (0.5-2.6)

Chi square test done.

From table 20, it could be inferred that the clinical symptoms of hyperthyroidism were more prevalent among the late adolescent female students. The proportions of subjects with clinical symptom pertaining to hyperthyroidism such as always feeling of excessive hunger, rapid weight gain , heat intolerance,

excessive sweating were higher among those who had suppressed TSH value than those who had normal TSH although there was no statistical significant difference.

The proportions of subjects clinical symptom pertaining to Hyperthyroidism such as always feeling nervous , irritable, agitated and palpitations were not higher among those who had suppressed TSH value than those who had normal TSH although no statistical significant association could be made.

The subjects were categorized based on the total number of hyperthyroid clinical symptoms said to be present in each subjects.

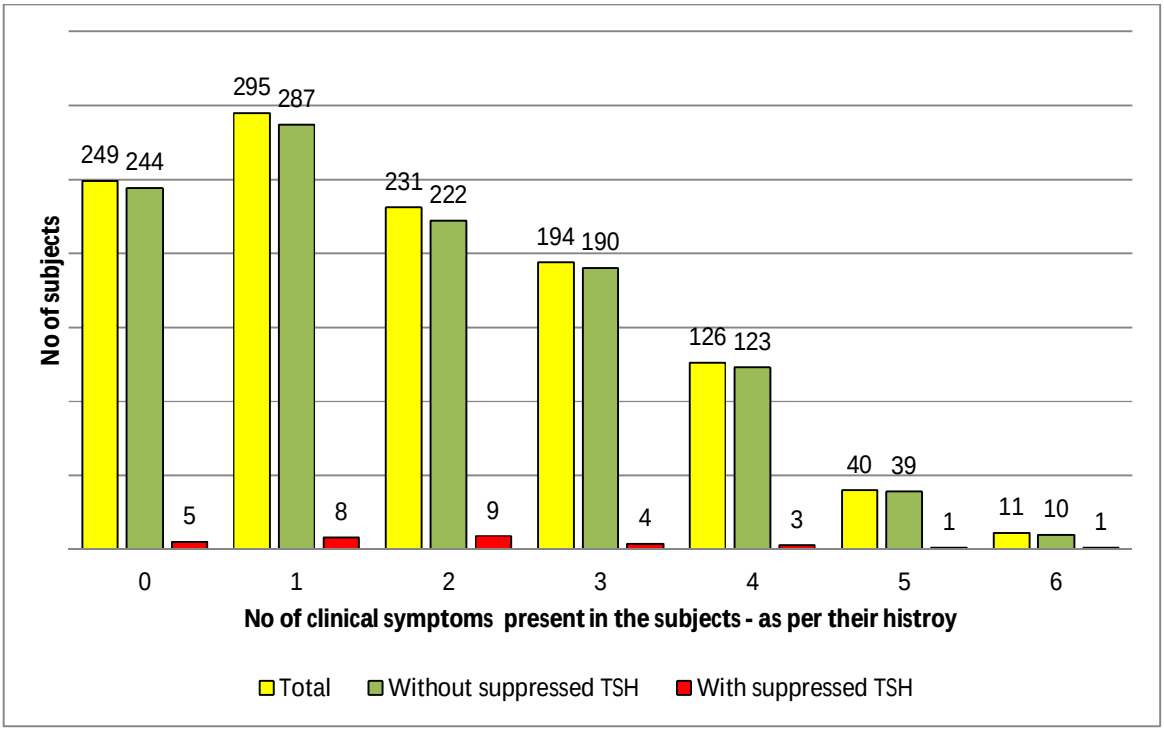

Figure 9: Number of overall subjects, subjects without and with suppressed TSH in each category -categorized based on total number of clinical symptoms present in every subjects as per their history

From figure 9 it could be inferred that in 5 out of 231 subjects who gave no history of any of the clinical symptom pertaining to hyperthyroidism, TSH was suppressed. Only in one subject out of the 10 subjects who gave positive history of all six clinical symptom pertaining to hyperthyroidism had suppressed TSH. The hyperthyroidism in late adolescent girls is an ice berg disease very few of them show clinical manifestations. Most of them could have subclinical hyperthyroidism and also. In this study it could not be certainly said as free Thyroxine (T4) and free (T3) was not measured.

Menstrual symptoms

Menarche and its association with thyroid dysfunction

Table 21: Menarche Descriptive Statistics

History	Category		No of subjects	
			n	%
Menarche	Attained (Mean age in years 13 ±1.2)	Attained (2 or more cycles)	1136/1146	99.2
		Just attained (less than 2 cycles)	1/1146	
	Not attained		9/1146	0.8
	Early(before 10 yrs)		0/1146	0
	Normal(10 years-15 years)		1117/1146	97.5
	Delayed(at 16 years or later)		29/1146	2.5

From table 21 it could be inferred that out of 1146 subjects, 1137(99.2 %) had attained menarche 1 subject had just attained menarche and 9 of them had not attained menarche at the time of study.

Out of 1137 subjects who had attained menarche, the mean age of attaining menarche was 13 years ±1.2 years and was normally distributed. None had attained menarche before the age of 10 years. 29 of them 2.5 % had delayed menarche at 16 years and above.

Table 22: Association between the thyroid dysfunction and delayed menarche.

S.NO	TSH Category	Menarche		p value	Odds ratio (95 % CI)
		Delayed n (%)	Normal n (%)		
1	Elevated TSH	2 (2.1 %)	95 (97.9 %)	0.750	0.7(0.1-3.3)
	Normal TSH	26 (2.6 %)	976 (97.4 %)		
2	Suppressed TSH	0	31 (100 %)	-	-
	Normal TSH	26 (2.6 %)	976 (97.4 %)		

Chi square test done.

From t table 22, very few subjects with elevated TSH had delayed menarche (2.1 %) and none of the subjects with suppressed TSH had delayed puberty. There was no statistically significant association between delayed menarche and elevated or suppressed TSH. Also there was no statistically significant difference in the mean age of menarche those with suppressed TSH (13.26 ± 0.9) and without suppressed TSH (13.02 ± 1.2), those with elevated TSH (12.96 ± 1.12) and without elevated TSH (13.02± 1.23).

Menstrual cycle

Table 23: Menstrual History descriptive

History	Category	No of subjects	
		n	%
Abnormal menstrual history	Present	522	45.5 %
	Absent	624	54.5 %
Within Abnormal menstrual history(522)	Had Treatment.	126	24.1
	Had No treatment.	396	75.9
Interval of Menstrual cycle	Regular	965/1146	84.9
	Frequent (< 21 days)	29/(1136)	2.6
	Infrequent(> 42 days)	142/(1136)	12.5
Heavy Flow (periods> 8 days or passing clots)	Present	(355)/1137	31.2
	Absent	782/1137	68.7

Abnormal menstrual history

Subjects were said to have abnormal menstrual history if any one of the four parameters was abnormal –menarche, regularity, amount of blood loss, had treatment for menstrual irregularity. From table 23, abnormal menstrual history was reported by 45.5 % of the subjects . Among those who had abnormal menstrual history only 24.1 % had treatment for menstrual disturbance.

Association between thyroid dysfunction and abnormal menstrual history

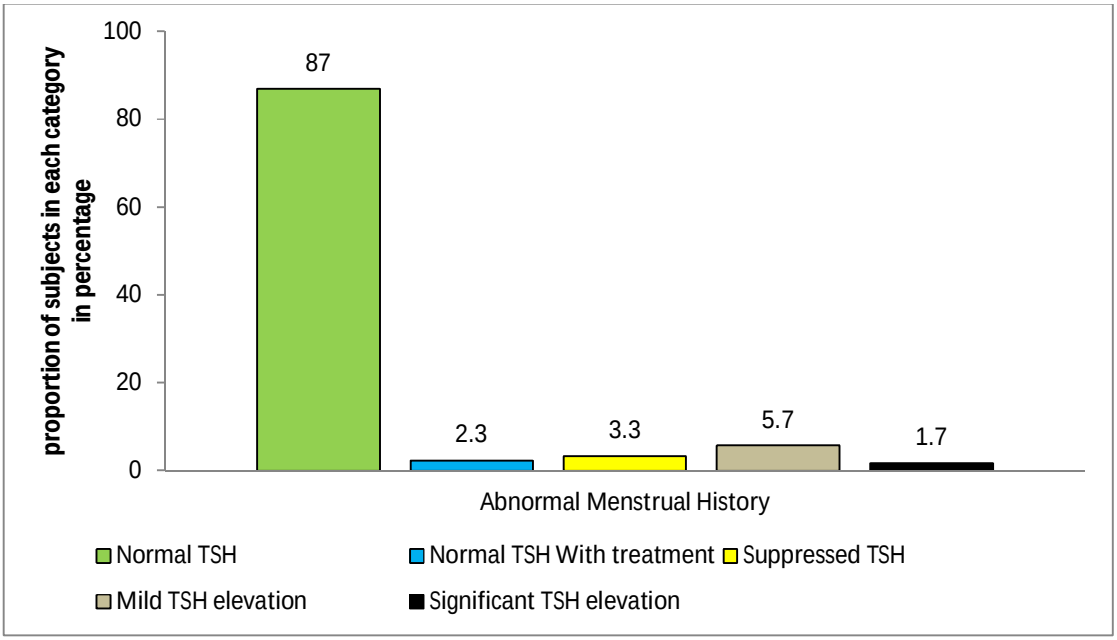

Figure 10: Proportion of subjects with thyroid dysfunction among subjects with abnormal menstrual history.

From figure 10, most of the late adolescent females with abnormal menstrual history had normal TSH (87 %), 2.3 % had normal TSH with treatment, 3.3 % had suppressed TSH, 5.7 % had mild TSH elevation and 1.7 % had significant TSH elevation. But there was no statistically significant association between abnormal menstrual history and thyroid dysfunction.

Regularity

From table 23, irregular menstrual bleeding was reported by 15.1 % of the subjects who had attained menarche, of which infrequent menstrual bleeding was reported by 12.5 % and frequent menstrual bleeding was reported by 2.5% of them.

Association between frequent menstrual cycle and elevated TSH

Table 24 Association between frequent menstrual cycle and Elevated TSH

S. No	TSH Category	Interval of menstrual cycle		p value	Odds ratio (95 % CI)
		Frequent n (%)	Normal n (%)		
1	Elevated TSH	2 (2.4 %)	81 (97.6 %)	0.860	0.8 (0.2-3.7)
	Normal TSH	24 (2.7 %)	852 (97.3 %)		

Chi-square test done.

From table 24, there was no statistically significant difference in proportion of late adolescent females with frequent menstrual cycle among those who had elevated TSH and normal TSH.

Association between infrequent menstrual cycle and Suppressed TSH

Table 25: **Association between infrequent menstrual cycle and Suppressed TSH**

S. No	TSH Category	Interval of menstrual cycle		p value	Odds ratio (95 % CI)
		Infrequent n (%)	Normal n (%)		
1	Suppressed TSH	6 (19.4 %)	25 (80.6 %)	0.232	1.7 (0.6- 4.3)
	Normal TSH	118 (12.2 %)	852 (87.8 %)		

Chi square test done.

From table 25, it was inferred that though the proportion of late adolescent girls with infrequent menstruation was higher among those with suppressed TSH (19.4 %) than those with normal TSH (12.2 %) the difference was not statistically significant in late adolescent girls.

Association between heavy flow during menstrual cycle and elevated TSH

Table 26: Association between heavy flow during menstrual cycle and elevated TSH

S. No	TSH Category	Heavy flow		p value	Odds ratio (95 % CI)
		Present n (%)	Absent n (%)		
1	Elevated TSH	6(19.4 %)	25(80.6 %)	0.232	1.7(0.6- 4.3)
	Normal TSH	118(12.2 %)	852(87.8 %)		

Chi square test done.

From table 26, among 1137 who had attained menarche, heavy flow during menstrual period was reported by 31.2%. There was no statistically significant association between heavy blood loss during menstrual cycle and elevated TSH in late adolescent females.

Clinical Signs

Goitre

The prevalence of goitre among the late adolescent female students of Salem district was 27.2 % (24.6 % - 29.8 %.) estimated clinically as per WHO / UNICEF / ICCIDD guidelines.

Comparison of goitre prevalence across different socio-demographic categories

Table 27: Goitre prevalence versus Socio- demographic characteristics

S. NO	Socio-demographic groups	category	Proportion of people with goitre n (%)	p value
1	Locality	Rural	151(26.8 %)	0.72
		Urban	161(27.6 %)	
2.	Landscape	Hilly area	21(16.8 %)	0.006
		Plains	291(28.5 %)	
3	Socio economic status	Low SES	189(30.5 %)	0.007
		High SES	123(23.4 %)	
4.	Educational institute	College	51(44.0 %)	< 0.01
		School	261(25.3 %)	
5	Usage of iodized salt for cooking	Not using	65(29.4 %)	0.703
		Using	211(28.1 %)	

Chi square test done.

From table 27, it was evident that the prevalence of goitre was statistically significantly higher among late adolescent girls from plains (28.5 %) than from hilly area (16.8 %), (p- 0.006) ; those from low socioeconomic group (30.5 %) than from high socio economic group (23.4 %) , (p-0.007); from colleges(44.0 %) than from schools(25.3 %) ($p<0.01$). There was no statistically significant difference in the proportion of late adolescent girls with goitre among rural and urban group, those using and not using iodized salt for cooking.

Distribution of thyroid dysfunction among subjects having goitre

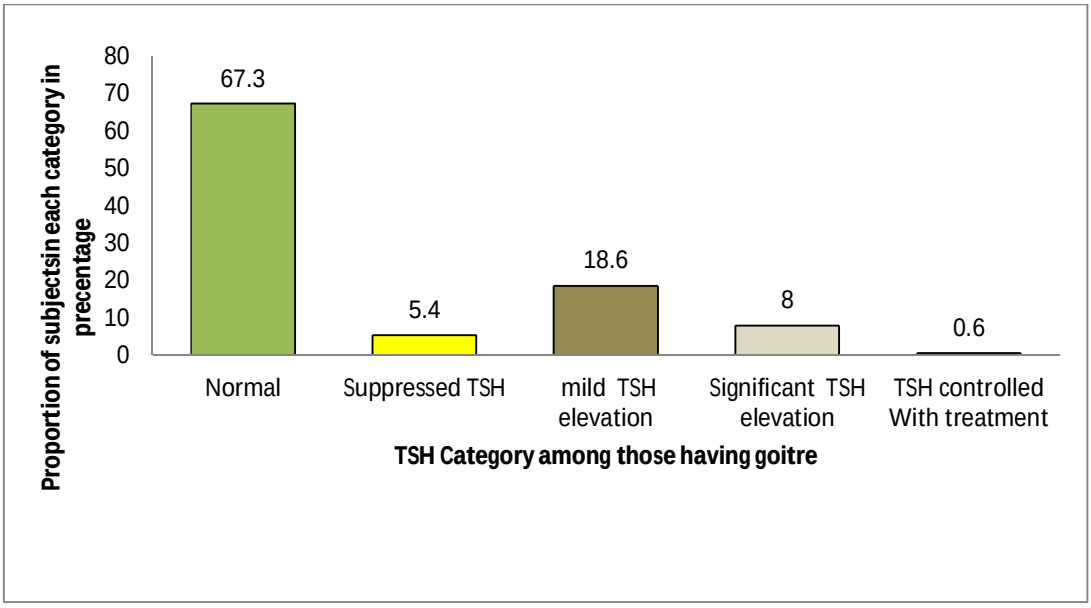

Figure 11: Distribution of thyroid dysfunction among goitre

From figure 11, most (67.3 %) of them with goitre had Normal TSH level without any treatment, 18.6 % of them had mild TSH elevation and 8 % of them had thyroid dysfunction with significant TSH elevation 5.4 % had thyroid dysfunction with suppressed TSH.

Association between Thyroid dysfunction and goitre

Table 28: Association between Thyroid dysfunction and goitre

S. NO	TSH Category	Goitre		p value	Odds ratio (95 % CI)
		Present n (%)	**Absent n(%)**		
1	Elevated TSH	83 (85.2 %)	14 (14.4 %)	<0.01	22.3 (12.4-40.1)
	Normal TSH	210 (21.0 %)	792 (79.0 %)		
2	Suppressed TSH	17 (54.8 %)	14 (45.2 %)	<0.01	4.5 (2.2-9.4)
	Normal TSH	210 (21.0 %)	792 (79 %)		

Chi square test done

The proportion of subjects with goitre was 21 % among those with normal TSH, 85.2 % among those with elevated TSH and 54. 8 % among those with suppressed TSH. The proportion of subjects with goitre was statistically significantly higher ($p<0.01$) among those with elevated TSH than those with normal TSH and among those with suppressed TSH than with normal TSH. The odds of getting goitre was 22.3(95% CI-12.4-40.1) times higher among those with elevated TSH and 4.5(2.2-9.4) times higher among those with suppressed TSH when compared to those subjects with normal TSH.

Anthropometric features

Table 29: Anthropometric features of the study subjects

S.No	Parameters	Mean (±) Standard deviation	Categorical	No of cases	
				n	%
1.	Height (cms)	153 .9 (±)6.20	Stunting	201	17.5 %
			Normal	944	82.4%
			Tall	1	0.1%
2.	Weight (kg)	45 (±)8.5			
3.	BMI (kg/m^2)	18.99 (±)3.27	Severe Thinness	62	5.4%
			Thinness	154	13.4%
			Normal	841	73.4%
			Overweight	77	6.7 %
			Obese	12	1.0%

Height

From table 29, the mean height of the study population was 153.9 cms with standard deviation of ± 6.2 cms. Stunting (less than – 2 SD) was present in 17.4 % and only one 1 subject was tall (greater than + 2 SD) .

BMI

From table 29,it was inferred that, the mean BMI of the study population was 18.99 kg /m^2 with standard deviation of ± 8.5 kg /m^2., 26.6 % had abnormal BMI, among them greater proportion (18.8%) had BMI below normal range than BMI above normal range which was observed in 7.7 % of the subjects.

Association between Thyroid dysfunction and anthropometric features.

Table 30: Association between Thyroid dysfunction and Stunting.

S. No	TSH Category	Height		p value	Odds ratio (95 % CI)
		Stunting n (%)	Normal n (%)		
1	Elevated TSH	17 (17.5 %)	80 (82.5 %)	.953	22.3 (12.4-40.1)
	Normal TSH	177 (17.7 %)	825 (82.3 %)		
2	Suppressed TSH	3 (9.7 %)	28 (45.2 %)	0.248	0.4 (0.1-1.6)
	Normal TSH	177 (17.7 %)	825 (79 %)		

From the table 30, there was no statistically significant difference in proportion of stunting between those with normal TSH and elevated or suppressed TSH.

Association between BMI above normal range and elevated TSH

Table 31: Association between BMI above normal range and elevated TSH

S.NO	TSH Category	BMI		p value	Odds ratio (95 % CI)
		Above normal	Normal		
1	Elevated TSH	14 (17.5 %)	66 (80.6 %)	0.009	2.25 (1.2- 4.2)
	Normal TSH	70 (8.6 %)	743 (91.4 %)		

Chi square test done

The proportion of subjects with BMI above normal was statistically significantly higher (p- 0.009) among those with elevated TSH than those with normal TSH. The odds of getting BMI above normal were 2.2 times higher among those had elevated TSH than those who had normal TSH level.

Association between BMI below normal and Suppressed TSH

Table 32: Association between BMI below normal and Suppressed TSH

S. No	TSH Category	BMI		p value	Odds ratio (95 % CI)
		Below normal n (%)	Normal n (%)		
1	Suppressed TSH	8 (26.7 %)	22 (73.3 %)	0.393	1.4 (0.6-3.2)
	Normal TSH	189 (20.3 %)	743 (79.7 %)		

Chi square test done.

From table 32, the proportion of subjects with BMI below normal range was higher among the subjects with suppressed TSH level (26. 7 %) than those with normal TSH level but the difference was not statistically significant.

Discussion

DISCUSSION

This study was an institution based cross sectional study and it primarily focused on the prevalence of thyroid dysfunction and its sub categories (Thyroid dysfunction with elevated TSH and Thyroid dysfunction with suppressed TSH) among the late adolescent girls of age group 15 to 19 years of Salem district. Variation in the prevalence of thyroid dysfunction among different socio-demographic groups based on locality, landscape, socio economic class were analyzed and the association between the risk factors and thyroid dysfunction, clinical features and thyroid dysfunction in this age group were determined.

Prevalence of thyroid dysfunction

In this study, above one in eight late adolescent female students of Salem district, Tamil Nadu had thyroid dysfunction 12.6% (10.64% - 14.56 %).Among those with thyroid dysfunction majority of them had elevated TSH (67.4 %) and one fifth of them had suppressed TSH (21.5 %). Among those with thyroid dysfunction only 20.1 % were already diagnosed and about 79.9 % were newly diagnosed by this study.

The thyroid disorders are more common worldwide and in India [(2)]. The prevalence of thyroid dysfunction varies based on age, sex, geographic location and iodine uptake [(2)]. Prevalence of thyroid dysfunction estimated in this study varied from that of the prevalence estimated by other studies because of variation in study designs, time period, geography and demography, study population, estimates,

study tool, the unclear definitions and diverse criteria for diagnosing thyroid dysfunction, technologies used to estimate the biochemical values, the method and reagents used, the quality of the laboratory in which the blood sample tested, range between the different laboratory and non-existence of standard cutoff or normal reference range.

In the famous Colorodo Thyroid disease prevalence study done among general polulation of Colorodo by Gay J Canaris in 1995, the prevalence of thyroid dysfunction was 11.7 %, with elevated TSH was 9.5 %, and prevalence of decreased TSH was 2.2 %.[41]

Prevalence of thyroid dysfunction among rural subjects

The prevalence of thyroid dysfunction among the late adolescent female students belonging to rural areas of Salem, Tamil Nadu was 12.4 % in this study, among them thyroid dysfunction with elevated TSH (9.1%) was more common than thyroid dysfunction with suppressed TSH (1.6%), in a study done by Poonam Arora et al in 2015 to estimate the prevalence of thyroid dysfunction among rural population of Gurgaon the prevalence was 25.17% among them majority had hypothyroidism (16.85%) and relatively few had hyperthyroidism 8.29% [76]. Probably the difference could have been because of variation in study subjects age, sex , ethinic groups, and the study type community based and hospital based study.

Prevalence of thyroid dysfunction among the urban subjects

The prevalence of thyroid dysfunction among the late adolescent female students belonging to urban areas of Salem, Tamil Nadu was 12.7 % , among them

thyroid dysfunction with elevated TSH(7.9 %) was more common than thyroid dysfunction with suppressed TSH (3.8 %). In a study conducted by Usha Menon et al in 2009 to study the status of thyroid disorder among the urban population of Kerala the prevalence of thyroid dysfunction was 19.6%[40]. In a multi-centric cross sectional study done by Ambika GopalaKrishnan Unnikrishnana et al in 2013 in eight cities of India the prevalence of hypothyroidism was 10.95 % and the prevalence varied between the cities and was lower in coastal cities when compared to In-land cities[38]. Probably the difference could have been due to variation in geographical location, age group, sex composition and ethinicity.

In this study, there was no statistically significant difference in the prevalence of thyroid dysfunction and Thyroid dysfunction with elevated TSH between the rural and urban population but the prevalence of thyroid dysfunction with suppressed TSH was statistically significantly (p- 0.02) higher among the urban population(3.8%) than the rural population(1.6 %).

Prevalence of thyroid dysfunction in hilly area

In this study the prevalence of thyroid dysfunction among late adolescent female student belonging to hilly area of Salem district was 15.2 % majority of them had thyroid dysfunction with elevated TSH (6.4 %) and relatively few had thyroid dysfunction with suppressed TSH (3.2 %). Thyroid dysfunction were said to be more common in hilly area, most of the studies done to estimate the prevalence of thyroid dysfunction among the people of hilly area were hospital based studies. In a study conducted by Rama JailKhani et al in 2015 to estimate the prevalence of thyroid

dysfunction in Srinagar, Jammu and Kashmir then prevalence of thyroid disorder was 40.36 % and majority had hypothyroidism(38.4%) and few had hyperthyroidism 1.6 %[77] In a study conducted by Madhuar Aryal et al in 2010 to estimate the prevalence of thyroid dysfunction among patients in a hospital of Kathmandu, Nepal the prevalence of thyroid dysfunction was 25% and majority had hypothyroidism (16%) and relatively lesser proportion had hyperthyroidism (9%)[78]. In a study done by N Baral et al in 2002, to study the prevalence of thyroid dysfunction in Eastern Nepal, 30.87 % had thyroid dysfunction, 17.19 % had hypothyroidism and 13.68 % had hyperthyroidism.[79]

In this study, though the prevalence of thyroid dysfunction was higher in hilly area (15.2 %) than plains (12.2 %), there was no statistically significant difference in prevalence of thyroid dysfunction, elevated TSH and suppressed TSH between the hilly and plains area of Salem district.

Prevalence of thyroid dysfunction among college students

In this study, the prevalence of thyroid dysfunction, elevated TSH and suppressed TSH were 14.7%, 10.3 % and 1.7 % respectively. In a study done by Kumaravel Velayutham et al in 2015 the prevalence of thyroid dysfunction, elevated TSH and suppressed TSH among the female college students of Madurai district were 12.5 %, 11% and 1.5 % respectively[34]. In a study conducted by Padma Bhatia et al in 2016 among the female college students of Bhopal, the prevalence of hypothyroidism using clinical scoring was 11 % and by TSH estimation was 7.6%[35].

In this study there was no statistically significant difference in the prevalence of thyroid dysfunction, elevated TSH and suppressed TSH between the school and college students of Salem district.

Treatment for thyroid disorders and thyroid dysfunction

In this study only 64% of subjects who were under treatment for already diagnosed thyroid dysfunction had normal TSH and 66.6 % of the subjects who did not take any treatment for the previously diagnosed thyroid disorder had normal TSH. There was no statistically significant reduction in the proportion of subjects with thyroid dysfunction with treatment.

The result was consistent with that of the Colorado thyroid disease prevalence study done by Gay J Canaris et al in 1995 wherein only 60% of those under the medication for thyroid dysfunction had their TSH within normal range[(41)]. In a hospital based one year follow up study done by Amitabh sing et al in 2016 among children less than 12 years only 54 % of the pediatric patients had normalization of thyroid function after one year of follow up with treatment and 3.3 % of hypothyroid patient developed features of hyperthyroidism during one year of treatment for hypothyroidism[(42)].

Risk factors for thyroid dysfunction

The risk factors for thyroid dysfunction addressed in this study were iodized salt intake, stress and family history of thyroid disorders.

Iodized salt intake

In India, NIDDCP was implemented in year 1991 and ban of sale of non-iodized salt for edible purpose was implemented in 1.1.1995. Even after 26 years of implementation of NIDDCP, India is in transitional state from iodine deficient area to iodine sufficient area [11].

In this study the proportion of people using iodized salt was 76.2 % in rural area and 78.3 % in urban area and there was no statistically significant difference in the proportion of people using iodized salt between rural and urban area. The proportion people using iodized salt in hilly area was statistically significantly higher than those in plains (p-0.009). There was no statistically significant difference in the proportion of people using iodized salt between low and high socioeconomic groups.

The proportion of people using iodized salt estimated in this study was much lower than that estimated by NFHS-4 which estimated that the proportion of household using iodized salt at national level was 96.5 % in urban and 91.4% in rural and at district level in Salem district was 91 % in urban and 85.7 % in rural[47,48].

Though this study did not measure the iodine sufficiency among the subjects by urine iodide excretion as recommended by WHO/UNICEF/ICCIDD[57], the prevalence of thyroid dysfunction, elevated TSH and suppressed TSH among those who gave history of using iodized salt for cooking purpose were 13 %, 8.9 % and 2.5% respectively.

The studies done in iodine sufficient areas state that thyroid dysfunction was still high among them and most common being subclinical hypothyroidism, and autoimmune thyroid disorder[14, 39-40].

In this study, there was no statistically significant difference in prevalence of thyroid dysfunction and its sub categories between those who use and didn't use iodized salt for cooking. It can be inferred that iodization of salt alone did not decrease the prevalence of thyroid dysfunction. This could be because of lack of knowledge in storage and usage of iodized salt as the iodide content is highly volatile and will be lost if kept in open air, not used at right time while cooking or some other reason like autoimmunity provoking thyroid dysfunction triggered by high iodine intake [8,15,49-50]. The reason for high prevalence of thyroid dysfunction among those who use iodized salt for cooking has to be studied.

It was said that the most common cause of thyroid dysfunction in the iodine deficient areas was iodine deficiency and the most common cause of thyroid dysfunction in iodine replete areas was autoimmune thyroid disorders [14].

Stress

It has been said that stress has effect on autonomous nervous system and adreno-cortical hormones levels [24]. Both autonomous nervous system and cortisol modulate hypothalamo-pituitary-thyroid axis [4]. In this study perceived stress was measured using perceived stress scale containing 10 items because it was simple, had been widely accepted ,had been used globally, a validated tool and superior than long scale (PSS-14)and short PSS (PSS-4) [52].

In this study, the mean perceived stress scale score was 19.42 with standard deviation of 4.87, standard error of mean was 0.143 and was uniformly distributed. The mean PSS score was statistically significantly (p-0.03) higher among those from urban area than those from rural area but there was no statistically significant difference in mean PSS score among the late adolescent female students, from hilly and plains; low socioeconomic groups and high socioeconomic group; school students and college students.

The mean PSS score was statistically significantly higher among those having thyroid dysfunction with suppressed TSH than those not having suppressed TSH (p-0.01). But there was no statistically significant difference in the mean of the PSS score between those who were with elevated TSH and without elevated TSH.

Family History of thyroid disorder

Certain thyroid disorders are familial [6-8]. In this study, 7 % of the subjects gave positive family history of thyroid dysfunction among the first degree relatives. Among those who gave positive family history 23.8 % had thyroid dysfunction, 15% had elevated TSH, and 1.3 % had suppressed TSH. The proportion of thyroid dysfunction and elevated TSH was statistically significantly higher among those who gave positive family history than those who either didn't know or did not have family history of thyroid disorder(p-<0.01, p-0.02 respectively). The odds of getting thyroid dysfunction with elevated TSH in late adolescent female students was two times higher those with family history of thyroid disorder than those who either didn't know or without any family history. There was no statistically significant

association between thyroid dysfunction with suppressed TSH and family history of thyroid disorder.

In the famous Whickham Study, the positive family history was not associated with increased risk for developing hypothyroidism.[51]

Clinical features of Thyroid dysfunction

In this study, clinical symptoms were more prevalent than thyroid dysfunction among the late adolescent female of Salem district. Among the subjects who gave positive history for any of these symptom pertaining to thyroid disorders, most of them had normal TSH without any treatment only very few had thyroid dysfunction. The chance of a late adolescent girl with any one of these clinical symptoms to have Abnormal TSH value was very low. Most of the subjects who had abnormal TSH values did not give history of these clinical symptoms. So this study infer that, one could not certainly say that a late adolescent female without any of these clinical manifestation would not have thyroid dysfunction. Among those symptoms muscle weakness and cramps was statistically significantly ($p < 0.01$) associated with elevated TSH.

The results were consistent with Colorado thyroid disease prevalence study done by Gay J Canaris et al in 1995, which also stated that the hypothyroid symptomotology was equally prevalent in hypothyroid and euthyroid individuals. The validity of the individual symptoms were very low[41].

In a study done by D. N. Golding et al in 1970, muscle weakness was identified as a common presentation among hypothyroid patients and it was also mentioned that women presenting with muscle weakness should be screened for thyroid dysfunction.[80]

No association between most of the clinical symptoms and biochemical parameter (TSH) among the late adolescent females could be due to insidious onset and very slow patho-physiological changes occurring in the thyroid disorders and may take several years for clinical manifestations to occur[7,14]. Though some clinical symptoms and signs may indicate the thyroid disorders, it is difficult to identify the classic clinical picture as symptoms are nonspecific, generalized and often present in other health problems[54]. The relation between the symptom and the patho-physiology of the thyroid disorder is so complex[55]. It is difficult to diagnose or screen the individuals for thyroid disorder with clinical signs and symptoms alone and forces the clinicians to go for biochemical measures for diagnosis[55]. The clinical manifestation vary based on the environmental factors such as geographical area, host factors such as age, sex, dietary pattern, behavior and life style, genetic predisposition etc. and nature of the thyroid disorders[7].

Menstrual History

In this study the mean age of attaining menarche was 13 years ±1.2 years and was normally distributed, 45.5 % of the subjects had abnormal menstrual history, none of them had early menarche and 2.5 % of them had delayed menarche at 16 years and above, 15.1 % had menstrual cycles at irregular interval, of which most

(12.5 %) of them had reported to have infrequent menstrual bleeding and few (2.5%) reported to have menstrual period at frequent intervals. Significant proportion (31.2 %) of them had heavy blood loss during menstrual period. Very few (24.1 %) of them with abnormal menstrual history had sought treatment.

The mean age at menarche among Indian women was 13.76 years [59]. In a study done by Franco Rigon et al in 2012 among adolescent girls of Italy, "the mean age at menarche was 12.4 (±1.3) years , 3 % had menstrual interval less than 21 days, 3.4 % had menstrual interval greater than 35 days and 19 % of them had heavy blood loss"[60]. This variation in menstrual disturbance could be due to variation in socio demographic factors.

In a study done by M.K.C Nair et al in 2011, the prevalence of menstrual disorder among adolescent girls of age 15-19 years was 21.1 % and very few of them with menstrual disorder (11.5 %) had sought treatment [61].

Thyroid dysfunction and menstrual disturbances

In this study, among the 522 late adolescent females with abnormal menstrual history most (87 %) of them had normal TSH, 13 % of them had thyroid dysfunction and there was no statistically significant association between abnormal menstrual history and thyroid dysfunction. There was no statistically significant association between elevated TSH and delayed puberty , elevated TSH and frequent menstrual cycle, heavy blood loss during menstrual cycle and elevated TSH and also no statistically significant association between delayed puberty and suppressed TSH, infrequent menstrual cycle and suppressed TSH.

Thyroid dysfunction at the time of puberty can delay the onset of menarche[81]. The menstrual symptoms pertaining to hypothyroidism were delayed puberty, menorrhagia [63]. The menstrual symptoms pertaining to hyperthyroidism were amenorrhoea, oligomenorrhoea. Thyroid dysfunction also have an important role in reproductive health of both men and women [63, 81]. In this study though there was no statistically significant association between thyroid dysfunction and abnormal menstrual history, prevalence of thyroid dysfunction (12.6 %) and abnormal menstrual history (45.5 %) were high among the late adolescent females and most of them had not taken any treatment. This can affect their reproductive health.

Clinical signs of Thyroid dysfunction

Goitre

In this study, the prevalence of goitre among the late adolescent female students of Salem district was 27.2 % (24.6 % - 29.8 %), estimated clinically as per WHO/UNICEF/ICCIDD guidelines. The prevalence of goitre was statistically significantly higher among late adolescent girls from plains (28.5 %) than from hilly area (16.8 %); those from low socioeconomic group (30.5 %) than from high socio economic group (23.4 %); from colleges (44 %) than from schools (25.3 %); but there was no statistically significant difference in the proportion of late adolescent girls with goitre among rural (26.8 %) and urban (27.6 %) group; those using (28.1%) and not using (28.1 %) iodized salt for cooking.

The prevalence of goitre varied based on the geographical area [2], socioeconomic status[58], iodized salt usage[8,14], age [39], diverse methods of estimation of prevalence, Based on 1. clinical examination – i).Diversity in examination methods- inspection, palpation methods ii). Diversity in criteria and grading system for goitre[57]. 2.Based on ultrasound guided - thyroid volume measurement etc.

In India goitre has been addressed under the NIDDCP since 1991 and even before that under the National goitre control program since 1962[11,33]. Under NIDDCP District wise surveys were conducted all over the country to estimate the goitre rate, iodine intake . The surveys were done only among the school children of age group 6-12 years. According to that survey, goitre was prevalent in all the districts of Tamil Nadu and 18 districts had prevalence of more than 10%. Ramanathapuram district had the highest prevalence of about 18% and Karur district had the least prevalence of about 3.6%. Salem district was one among the top five district with high goitre prevalence with prevalence of about 12.5% in 1999.

In a study done by R. K. Marwaha et al in 2000, the prevalence of goitre among adolescent female students (10-18 years) from 19 states of India was 28.7 % and prevalence in older girls (15-19 years) was 27 %. Most of them had autoimmune thyroid disorder. The prevalence of goitre was high among the female adolescent from poor socioeconomic back ground (31.9 %) when compared to higher socioeconomic status. In Another study done by R K Marvaha et al in 2012, the overall goitre prevalence in Delhi was 9.6 % and was higher among young women of

age group from 18 to 29 years (18.5 %) and the prevalence of goitre varied based on sex and age[58].

Thyroid dysfunction and goitre

In this study thyroid dysfunction was more common among those with goitre (32.7 %) than those without goitre (5 %) and was statistically significant. Most of them with goitre had normal TSH level without any treatment (67.3 %) and it can be physiological goitre(6). Elevated TSH was the common abnormality than Suppressed TSH among the goitorous late adolescent girls which was statistically significant. The odds of getting goitre was 23 times higher among those with elevated TSH when compared to those who had normal TSH without treatment. The odds of getting goitre was 4 time higher among those who had thyroid dysfunction with suppressed TSH than those who had normal TSH. Those with elevated TSH are at more risk of developing goitre when compared to those with normal TSH and suppressed TSH.

Association between thyroid dysfunction and growth

In this study, the mean height of the study population was 153.9 cms with standard deviation of ± 6.2 cms. The proportion of subjects with stunting was 17.7 % among those with normal TSH, 17.5 % among those with elevated TSH, and 9.7 % among those with suppressed TSH. There was no statistically significant association between stunting and TSH category**.**

Thyroid hormones play a significant role in growth and development of children and adolescent [3, 6]. Thyroid dysfunction cause growth retardation in them and cause early fusion of epiphysis in children and adolescents [3, 6]. In a study done

by Amitabh sing et al in 2016, short stature was the most common clinical presentation among hypothyroid patient. It also revealed that 55% of these hypothyroid children with short stature achieved normal growth velocity within one year of follow up with treatment[42].

The high prevalence of stunted growth among the late adolescent females of Salem district can also be attributed to other health problems like malnutrition which needs to be studied future.

BMI

In this study, the mean BMI of the study population was 18.99 kg/m^2 with standard deviation of 8.5 18.99 kg/m^2. About 26.6% had abnormal BMI, of them below normal range(18.8%) was more common than above normal range (7.7 %) .

According to NFHS-4, the percentage of women aged between 15- 49 years whose BMI was below normal (< 18.5 Kg/m^2) at national level was 15.5% in urban and 26.7 % in rural, Salem was11.2 % in urban and 12.8 % in rural[47,48]. The percentage of the women aged between 15-49 years whose BMI above normal ($\geq$25.0 Kg/m^2) at national level was 31.3% in urban and 15 % in rural, Salem was 35.2 % in urban and 23.8 % in rural. Thinness was more common among the age group 15-19 years in this study whereas BMI above 25 Kg/m^2 was more common in age group 15-45 years. The difference could be because of variation in BMI based on age, sex, race, geographical location and dietary practices.

Association between BMI and thyroid dysfunction

In this study the proportion of late adolescent girls with BMI above normal range was statistically significantly higher (p-0.009) among those with elevated TSH than those with normal TSH. The odds of having BMI above normal was 2.2 times higher among adolescent girls with elevated TSH than those with normal TSH level. The proportion of subjects with BMI below normal range was higher among subjects with suppressed TSH level (26. 7 %) than those with normal TSH level which was not statistically significant.

The result was consistent with the study done by M. H. EfteKhari et al in 2007 among the high school students of Iran, which stated that the adolescent girls with high BMI had higher serum TSH concentration than subjects with BMI < 25 Kg/ m^2.[65]

The reason for obesity among those with hypothyroidism, could be because of regulatory role played by thyroid hormones in carbohydrate and lipid metabolism (4,5). Therefore thyroid dysfunction can predispose to obesity and other cardiovascular disease risk (5). Obese people with hypothyroidism tend to weight loss with thyroid hormone replacement therapy (64). On the other hand, obese people tend to have higher serum TSH level in spite of normal thyroid gland. Weight loss could normalize thyroid function and small difference in serum TSH level was associated up to 5 kilograms difference in body weight. (64). The temporality in association between body weight and thyroid dysfunction had to be studied.

Conclusion

CONCLUSION

Among the late adolescent females of Salem district

1. The prevalence of thyroid dysfunction was high. One in eight of them had Thyroid dysfunction. Thyroid dysfunction with elevated TSH was more common than suppressed TSH and most of them had mild TSH elevation. Only one fifth of those with thyroid dysfunction were previously diagnosed. Only one in ten with thyroid dysfunction had their TSH controlled with medication.
2. Though there was no statistically significant difference in prevalence of Thyroid dysfunction among those from rural(12.4 %) and urban (12.7%), the prevalence of suppressed TSH among those from urban area(3.8 %) was statistically significantly (p-0.023) two times higher than those from rural area (1.6 %).
3. The prevalence of elevated TSH was more in plains (8.76 %) than in hilly areas (6.4 %), though statistically not significant. In contrast, suppressed TSH was more prevalent in hilly area (3.2 %) than in plains(2.6 %) which was also not statistically significant.
4. Iodized salt consumption was high in hilly areas (87.2 %) than that of plains (76 %). However there was no statistically significant association between iodised salt consumption and prevalence of thyroid dysfunction among late adolescent females.

5. The late adolescent females with positive family history were at two times increased odds of having elevated TSH.
6. The mean perceived stress score was statistically significantly higher among those who had suppressed TSH (21.54±4.61) than with normal TSH (19.36±4.86) (p- 0.01).
7. The proportion of late adolescent females with musculoskeletal disorders was statistically significantly higher among those with elevated TSH (34 %) than those with normal TSH (20%) ($p<0.01$).
8. Menstrual problems were more prevalent among the late adolescent females and very few had sought treatment. No statistically significant association could be made between any of those menstrual disturbances and thyroid dysfunction.
9. The prevalence of goitre was 27.2%. Most of the late adolescent females with goitre had normal TSH which could be physiological goitre. The odds of developing goitre was 22.3(12.4 – 40.1) times higher among those with elevated TSH and 4.5(2.2 -9.4) times higher among those with suppressed TSH when compared to those subjects with normal TSH.
10. The prevalence of stunted growth was high (17.4%). There was no statistically significant association between stunting of growth and abnormal thyroid function among late adolescent females.
11. The prevalence of thinness (13.4%) and severe thinness (5.4%) was high. The prevalence of BMI below normal was high among late adolescent females

with suppressed TSH (26.7%) than those with normal TSH (20.3%) but the difference was not statistically significant.

12. The prevalence of overweight and obesity were 6.7 % and 1 % respectively. The prevalence of BMI above normal was statistically significantly higher among those with elevated TSH (17.5 %) than those with normal TSH (8.6%). The odds of becoming overweight or obese was 2.2(1.2- 4.2) times higher among those with elevated TSH than those with normal TSH.
13. Thyroid dysfunction symptomatology was highly prevalent even among euthyroid individuals. Muscle weakness was the only symptom which had a statistically significant association with elevated TSH.

Recommendation

RECOMMENDATION

1. About one in eight late adolescent females of Salem district had thyroid dysfunction. The reason for high prevalence of thyroid dysfunction among this group requires further scientific studies.
2. In India, among the thyroid disorders, only goitre has been given public health importance under the National Iodine Deficiency Disorder Control Program and also public health importance to adolescent health especially females has been increasing in trend. Thyroid disorders among late adolescent females should be given public health importance.
3. Similar to National level Goitre survey, National level thyroid dysfunction survey should be undertaken to understand the epidemiology.
4. In the present study, family history had a significant association with thyroid dysfunction .Hence it may be recommended that late adolescent females with family history of thyroid disorder must be screened for early management and preventing complications.
5. Only one fifth of those with thyroid dysfunction were previously diagnosed. Hence screening of the late adolescent females for thyroid dysfunction irrespective of their symptoms has to done as early diagnosis and treatment can prevent long term complications.

Limitations

LIMITATIONS

1. This study was an institution based study.
2. This study was a cross sectional study design. Though the prevalence of the thyroid dysfunction and the subcategories could be estimated, the exact strength of association, causation and temporality of association could not be made between Thyroid dysfunction and the associated factors.
3. Iodine intake was estimated only based on the history of iodized salt intake, though urinary iodine excretion was the recommended method to estimate the iodine sufficiency in the population.
4. This study tried to estimate only the prevalence of thyroid dysfunction and did not try to differentiate hypothyroidism and hyperthyroidism with certainty based on TSH value alone.

Bibliography

BIBLIOGRAPHY

1. WHO fact sheet on Non Communicable diseases. WHO.[internet] .Available from http://www.who.int/mediacentre/factsheets/fs355/en/
2. Kochupillai N. Clinical endocrinology in India. Current Science. 2000 Oct 25;79(8):1061-7.
3. Wu T, Flowers JW, Tudiver F, Wilson JL, Punyasavatsut N. Subclinical thyroid disorders and cognitive performance among adolescents in the United States. BMC Pediatr [Internet]. 2006;6:1–6. Available from: http://bmcpediatr.biomedcentral.com/articles/10.1186/1471-2431-6-12
4. Mullur R, Liu YY, Brent GA. Thyroid hormone regulation of metabolism. Physiological reviews. 2014 Apr 1;94(2):355-82. Available from : https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4044302/
5. Ogbera AO, Kuku S, Dada O. The metabolic syndrome in thyroid disease: a report from Nigeria. Indian journal of endocrinology and metabolism. 2012 May;16(3):417.
6. Barrett KE, Barman SM, Boitano S, Brooks H, " Chapter 20.Thyroid Gland."(Chapter).Barrett KE, Barman SM, Boitano S, Brooks H: Ganong's Review of Medical Physiology, 23ed.India:Tata McGraw-Hill;2010:301-313.
7. Kumar V, Abbas AK, Aster JC, "Chapter 24.The Endocrine systems". Kumar V, Abbas AK, Aster JC: Robbins and Cotran Pathologic Basis of Disease.^{8th}ed.India:Saunders Elsevier;2009:1107-1119.
8. BaJaJ JK, Salwan P, Salwan S. Various possible toxicants involved in thyroid dysfunction: A Review. Journal of clinical and diagnostic research: JCDR. 2016 Jan;10(1):FE01.
9. Ramalingaswami, V., Subramanian, T. A. V. and Deo, M. G., Lancet, 1961, 1, 791–794.
10. Indian Council of Medical Research Publication, New Delhi. 1989.
11. Pandav CS, Yadav K, Srivastava R, Pandav R, Karmarkar MG. Iodine deficiency disorders (IDD) control in India. The Indian journal of medical research. 2013 Sep;138(3):418.

12. Niazi AK, Kalra S, Irfan A, Islam A. Thyroidology over the ages. Indian journal of endocrinology and metabolism. 2011 Jul;15(Suppl2):S121.
13. Laurberg P, Pedersen KM, Hreidarsson A, Sigfusson N, Iversen E, Knudsen PR. Iodine intake and the pattern of thyroid disorders: a comparative epidemiological study of thyroid abnormalities in the elderly in Iceland and in Jutland, Denmark. The Journal of Clinical Endocrinology & Metabolism. 1998 Mar 1;83(3):765-9.
14. Vanderpump MP, Tunbridge WM. The epidemiology of thyroid diseases. Werner and Ingbar's the thyroid: a fundamental and clinical text. 2005:398-406.
15. Konno N, Yuri K, Taguchi H, Miura K, Taguchi S, Hagiwara K, Murakami S. Screening for thyroid diseases in an iodine sufficient area with sensitive thyrotrophin assays, and serum thyroid autoantibody and urinary iodide determinations. Clinical endocrinology. 1993 Mar 1;38(3):273-81.
16. Larsen PR, Davies TF, Schlumberger MJ, et al Thyroid Physiology and diagnostic evaluation of patients with thyroid disorders. In: Larsen PR, Kronenberg HM, Melmed S, Polonsky KS (eds) Williams Textbook of endocrinology, 10th edition. Philadelphia, Saunders;2002:P331-373.
17. Sahu MT, Das V, Mittal S, Agarwal A, Sahu M. Overt and subclinical thyroid dysfunction among Indian pregnant women and its effect on maternal and fetal outcome. Archives of gynecology and obstetrics. 2010 Feb 1;281(2):215.
18. Jenner MR, Kelch RP, Kaplan SL, Grumbach MM. Hormonal changes in puberty: IV. Plasma estradiol, LH, and FSH in prepubertal children, pubertal females, and in precocious puberty, premature thelarche, hypogonadism, and in a child with a feminizing ovarian tumor. The Journal of Clinical Endocrinology & Metabolism. 1972 Mar;34(3):521-30.
19. Burger HG, Dudley EC, Robertson DM, Dennerstein L. Hormonal changes in the menopause transition. Recent progress in hormone research. 2002 Jan 1;57:257-76.
20. Heitz NA, Eisenman PA, Beck CL, Walker JA. Hormonal changes throughout the menstrual cycle and increased anterior cruciate ligament laxity in females. Journal of athletic training. 1999 Apr;34(2):144.

21. Al-Azzawi F, Palacios S. Hormonal changes during menopause. Maturitas. 2009 Jun 20;63(2):135-7.
22. Marazziti D, Canale D. Hormonal changes when falling in love. Psychoneuroendocrinology. 2004 Aug 31;29(7):931-6.
23. Gunnar MR, Wewerka S, Frenn K, Long JD, Griggs C. Developmental changes in hypothalamus–pituitary–adrenal activity over the transition to adolescence: normative changes and associations with puberty. Development and psychopathology. 2009 Jan;21(1):69-85.
24. Dahl RE, Gunnar MR. Heightened stress responsiveness and emotional reactivity during pubertal maturation: implications for psychopathology. Development and psychopathology. 2009 Jan;21(1):1-6.
25. Grour MW, Thomas SP, Shoffner D. Adolescent stress and coping: A longitudinal study. Research in Nursing & Health. 1992 Jun 1;15(3):209-17.
26. Negro R, Schwartz A, Gismondi R, Tinelli A, Mangieri T, Stagnaro-Green A. Universal screening versus case finding for detection and treatment of thyroid hormonal dysfunction during pregnancy. The Journal of Clinical Endocrinology & Metabolism. 2010 Apr 1;95(4):1699-707.
27. Horacek J, Spitalnikova S, Dlabalova B, Malirova E, Vizda J, Svilias I, Cepkova J, Mc Grath C, Maly J. Universal screening detects two-times more thyroid disorders in early pregnancy than targeted high-risk case finding. European Journal of Endocrinology. 2010 Oct 1;163(4):645-50.
28. Jain V, Agarwal R, Deorari AK, Paul VK. Congenital hypothyroidism. Indian journal of pediatrics. 2008 Apr 1;75(4):363-7.
29. Joshi SR. Laboratory evaluation of thyroid function. JAPI. 2011 Jan;59:14-20.
30. Ross DS, Daniels GH, Gouveia D. The use and limitations of a chemiluminescent thyrotropin assay as a single thyroid function test in an out-patient endocrine clinic. The Journal of Clinical Endocrinology & Metabolism. 1990 Sep;71(3):764-9.
31. Heuck CC, Kallner A, Kanagasabapathy AS, Riesen W, World Health Organization. Diagnosis and monitoring of diseases of the thyroid.2000
32. Salem District Population Census 2011, Tamil Nadu literacy sex ratio and

density [Internet]. 2011 [cited 2017 Oct 30]. Available from: http://www.census2011.co.in/census/district/21-chennai.html

33. Health and Family welfare department [TN].year. National iodine Deficiency Disorder Control Program Status Report.[Internet].[Accessed on 10 October 2017]. Available from: http://www.tnhealth.org/dph/dphdbiod.php
34. Velayutham K, Selvan SS UA. Prevalence of thyroid dysfunction among young females in a South Indian population. Indian J Endocrinol Metab [Internet]. 2015;19(6):781–4. Available from: http://www.ijem.in/text.asp?2015/19/6/781/167546
35. Bhatia P, Dubey M, Choudhary Y. Prevalence of hypothyroidism amongst college girls of Bhopal, Madhya Pradesh, India: a cross sectional study. International Journal Of Community Medicine And Public Health. 2016 Dec 22;3(12):3345-8.
36. Dhanwal DK, Bajaj S, Rajput R, Subramaniam K, Chowdhury S, Bhandari R, Dharmalingam M, Sahay R, Ganie A, Kotwal N SU. Prevalence of hypothyroidism in pregnancy: An epidemiological study from 11 cities in 9 states of India. Indian J Endocr Metab [Internet]. 2016;20(3):387–90. Available from: http://www.ijem.in/text.asp?2016/20/3/387/179992
37. Dey S. 1 in 10 Indians suffer from thyroid disorder: Study. The Times of India TNN [Internet]. 2015 Jan 25; Available from: http://timesofindia.indiatimes.com/india/1-in-10-Indians-suffer-from-thyroid-disorder-Study/articleshow/46007453.cms
38. Unnikrishnan AG, Kalra S, Sahay RK, Bantwal G, John M, Tewari N. Prevalence of hypothyroidism in adults: An epidemiological study in eight cities of India. Indian journal of endocrinology and metabolism. 2013 Jul;17(4):647.1
39. Marwaha RK, Tandon N, Ganie MA, Kanwar R, Sastry A, Garg MK, Bhadra K, Singh S. Status of thyroid function in Indian adults: Two decades after universal salt iodization. J Assoc Physicians India. 2012 Apr;60:32-6.
40. Usha MV, Sundaram KR, Unnikrishnan AG, Jayakumar RV, Nair V, Kumar H. High prevalence of undetected thyroid disorders in an iodine sufficient adult

south Indian population. Journal of the Indian Medical Association. 2009 Feb;107(2):72-7.

41. CCanaris GJ, Manowitz NR, Mayor G, Ridgway EC. The Colorado thyroid disease prevalence study. Archives of internal medicine. 2000 Feb 28;160(4):526-34
42. Singh A, Purani C, Mandal A, Mehariya KM, Das RR. Prevalence of thyroid disorders in children at a tertiary care hospital in western India. Journal of clinical and diagnostic research: JCDR. 2016 Feb;10(2):SC01.
43. Bose A, Sharma N, Hemvani N, Chitnis DS. A hospital based prevalence study on thyroid disorders in Malwa region of Central India. Int J Curr Microbiol App Sci. 2015;4(6):604-11.
44. Dhadhal R, Mulchandani V, Parakh R, Joshee A, Mangukiya K, Bathwar N. A cross sectional study of prevalence of hypothyroidism in adult population of udaipur district. GJBB. 2015;4(1):103-6.
45. Abraham R, Murugan VS, Pukazhvanthen P, Sen SK. Thyroid disorders in women of Puducherry. Indian journal of clinical biochemistry. 2009 Jan 1;24(1):52-9.
46. Hanna CE, LaFranchi SH. Adolescent thyroid disorders. Adolescent Medicine Clinics. 2002 Feb 1;13(1):13.
47. International Institute for Population Sciences. National Family Health Survey-4. National Fact Sheet Tamil Nadu 2015-16 [Internet]. 2015 [cited 2017 Jul 17]. Available from: http://rchiips.org/nfhs/factsheet_NFHS-4.shtml
48. International Institute of Population Studies (IIPS). National Family Health Survey - 4 District Fact Sheet for Tamil Nadu. 2015;.
49. Saboori AM, Rose NR, Bresler HS, Vladut-Talor M, Burek CL. Iodination of human thyroglobulin (Tg) alters its immunoreactivity. I. Iodination alters multiple epitopes of human Tg. Clinical and experimental immunology. 1998 Aug;113(2):297.
50. Saboori AM, Rose NR, Burek CL. Iodination of human thyroglobulin (Tg) alters its immunoreactivity. II. Fine specificity of a monoclonal antibody that

recognizes iodinated Tg. Clinical and experimental immunology. 1998 Aug 1;113:303-8.

51. Vanderpump MP, Tunbrldge WM, French J, Appleton D, Bates D, Clark F, Evans JG, Hasan DM, Rodgers H, Tunbridge F, Young ET. The incidence of thyroid disorders in the community: a twenty-year follow-up of the Whickham Survey. Clinical endocrinology. 1995 Jul 1;43(1):55-68.
52. Lee EH. Review of the psychometric evidence of the perceived stress scale. Asian nursing research. 2012 Dec 31;6(4):121-7.
53. Cohen S, Kamarck T, Mermelstein R. Perceived stress scale. Measuring stress: A guide for health and social scientists. 1994.
54. Canaris, Gay J., John F. Steiner, and E. Chester Ridgway. "Do traditional symptoms of hypothyroidism correlate with biochemical disease?." Journal of general internal medicine12.9 (1997): 544-550.
55. Gavin LA. The diagnostic dilemmas of hyperthyroxinemia and hypothyroxinemia. Advances in internal medicine. 1987 Dec;33:185-203.
56. Unnikrishnan AG, Menon UV. Thyroid disorders in India: An epidemiological perspective. Indian journal of endocrinology and metabolism. 2011 Jul;15(Suppl2):S78.
57. World Health Organization. Goitre as a determinant of the prevalence and severity of iodine deficiency disorders in populations.2014.
58. Marwaha RK, Tandon N, Karak AK, Gupta N, Verma K, Kochupillai N. Hashimoto's thyroiditis: countrywide screening of goitrous healthy young girls in postiodization phase in India. The Journal of Clinical Endocrinology & Metabolism. 2000 Oct 1;85(10):3798-802.
59. Pathak PK, Tripathi N, Subramanian SV. Secular trends in menarcheal age in India-evidence from the Indian human development survey. PloS one. 2014 Nov 4;9(11):e111027.
60. Rigon F, De Sanctis V, Bernasconi S, Bianchin L, Bona G, Bozzola M, Buzi F, Radetti G, Tatò L, Tonini G, De Sanctis C. Menstrual pattern and menstrual disorders among adolescents: an update of the Italian data. Italian journal of pediatrics. 2012 Aug 14;38(1):38.

61. Nair MK, Chacko DS, Darwin MR, Padma K, George B, Russell PS. Menstrual disorders and menstrual hygiene practices in higher secondary school girls. The Indian Journal of Pediatrics. 2012 Jan 1;79(1):74-8.
62. Ajmani NS, Sarbhai V, Yadav N, Paul M, Ahmad A, Ajmani AK. Role of thyroid dysfunction in patients with menstrual disorders in tertiary care center of walled city of Delhi. The Journal of Obstetrics and Gynecology of India. 2016 Apr 1;66(2):115-9.
63. Krassas GE, Poppe K, Glinoer D. Thyroid function and human reproductive health. Endocrine reviews. 2010 Oct 1;31(5):702-55.
64. Laurberg P, Knudsen N, Andersen S, Carlé A, Pedersen IB, Karmisholt J. Thyroid function and obesity. European thyroid journal. 2012;1(3):159-67.
65. Eftekhari MH, Khosravi HM, Mazloom Z, Ahmadi A. Body mass index and thyroid function in adolescent girls. Pakistan journal of biological sciences: PJBS. 2007 Mar;10(6):905-9.
66. Clinical Anthropometric Biochemical (CAB) Manual. [nternet].Year.[Accessed on 2016 Feb 23]. Available from: http://www.rchiips.org/NFHS/ NFHS4/ manual/ NFHS-4% 20Biomarker%20Field%20Manual.pdf
67. WHO/UNICEF/ICCIDD. Assessment of iodine deficiency disorders and monitoring their elimination. A guide for programme managers, 3rd ed. Geneva: World Health Organization; 2007. Available from: (http://whqlibdoc.who.int/publications/2007/9789241595827_eng.pdf,).
68. Thyrocare . Thyrocare website.[Online].2016.[Accessed 25 october 2016]. Available from https://www.thyrocare.com/Test_Menu.asp
69. Anthony D. The state of the world's children 2011-adolescence: an age of opportunity. United Nations Children's Fund (UNICEF); 2011.p.6.
70. Ladenson PW, Singer PA, Ain KB, Bagchi N, Bigos ST, Levy EG, Smith SA, Daniels GH. American Thyroid Association guidelines for detection of thyroid dysfunction. Archives of internal medicine. 2000 Jun 12;160(11):1573-5.
71. Singh T, Sharma S, Nagesh S. Socio-economic status scales updated for 2017. International Journal of Research in Medical Sciences. 2017 Jun 24;5(7): 3264-7.

72. WHO | Height-for-age (5-19 years). Who [Internet]. 2015 [cited 2017 Oct 29]; Available from: http://www.who.int/growthref/who2007_height_for_age/en/
73. WHO | BMI-for-age (5-19 years). Who [Internet]. 2015 [cited 2017 Oct 29]; Available from: http://www.who.int/growthref/who2007_bmi_for_age/en/
74. Hickey M, Balen A. Menstrual disorders in adolescence: investigation and management. Human reproduction update. 2003 Sep 1;9(5):493-504.
75. Nrhm. Reading Material for ASHA - Book 5. Writ Commun [Internet]. 2001 [cited 2017 Oct 29];18(4):395–439. Available from: http://sanitation.indiawaterportal.org/sites/default/files/attachment/Menstrual hygiene - Reading material for ASHA %28English%29.pdf
76. Arora P, Prasad S, Karunanand B. Hospital based study of Thyroid disorders in rural population of Gurgaon, Haryana. International Journal of Current Research and Review. 2016 Nov 1;8(21):6.
77. Jailkhani R, Ramachandrayya SA, Patil VS. A hospital-based study of prevalence of thyroid dysfunction in Srinagar, Jammu and Kashmir state of India. International Journal of Medical Science and Public Health. 2015 Feb 1;4(2):151-5.
78. Aryal M, Gyawali P, Rajbh N, Aryal P, Raj D. A prevalence of thyroid dysfunction in Kathmandu University Hospital, Nepal. Biomedical Research. 2010;21(4).
79. Baral N, Lamsal M, Koner BC, Koirala S. Thyroid dysfunction in eastern Nepal. Southeast Asian journal of tropical medicine and public health. 2002 Sep 16;33(3):638-41.
80. Golding DN. Hypothyroidism presenting with musculoskeletal symptoms. Annals of the rheumatic diseases. 1970 Jan;29(1):10.
81. Thomas R, Reid RL. Thyroid disease and reproductive dysfunction: a review. Obstetrics and gynecology. 1987 Nov;70(5):789-98.

Annexures

ANNEXURE – I

QUESTIONNAIRE

THYROID DYSFUNCTION AND ITS ASSOCIATED FACTORS AMONG LATE ADOLESCENT GIRLS- A CROSS-SECTIONAL STUDY IN SALEM DISTRICT OF TAMIL NADU -2017.

PART-I

Study ID No : **Date:**

1. SOCIO-DEMOGRAPHIC DETAILS

NAME OF THE HEALTH BLOCK:

LOCALITY: RURAL/URBAN **LAND SCAPE: HILLY AREA/PLAINS**

1. Personal details

NAME :

AGE :

Educational Status :

Occupation :

Marital Status :

2. Family details

S. No	Name of family members	Age	Relation	Education	Occupation	Monthly income
1						
2						
3						
4						
5						
6						
7						

3. No of family members :

4. Type of family : 1. Nuclear Family 2. Joint Family

4. Address :

5. Contact No :

6. Email id :

2. CLINICAL DETAILS

2.A. Clinical Symptoms- English

S. NO	CLINICAL SYMPTOMS		
A	**HYPOTHROIDISM**	**RESPONSES**	
1.	Are you often feeling tired?	1.Yes	2. No
2	Are you having rapid weight gain?	1.Yes	2. No
3.	Are you often having decreased hunger?	1.Yes	2. No
4.	Do you have the feeling of weakness, muscle cramps, joint pains often?	1.Yes	2. No
5.	Are you often feeling either excessive sleepiness during day time or prolonged night time sleepiness?	1.Yes	2. No
6.	Do you have any difficulty in swallowing of food or water?	1.Yes	2. No
7.	Do you have hoarseness of voice?	1.Yes	2. No
8.	Do you have Constipation?	1.Yes	2. No
9.	Do you have Cold intolerance when compared to others?	1.Yes	2. No
10.	Do you often feel low in mood?	1.Yes	2. No
11.	Are you suffering due to forgetfulness?	1.Yes	2. No
B	**Hyperthyroidism**	**RESPONSES**	
1	Are you often having excessive hunger?	1.Yes	2. No
2	Are you having either weight loss or no weight gain?	1.Yes	2. No
3	Do you have heat intolerance when compared to others?	1.Yes	2. No
4	Are you often feeling nervous, irritable, anxiety or agitation?	1.Yes	2. No
5	Do you have palpitations?	1.Yes	2. No
6	Do you have excessive sweating often when compared to others?	1.Yes	2. No
C	**MENSTRUAL HISTORY**	**RESPONSES**	
1.	What is your age at menarche?		
2	In How many days once do you get menstrual bleeding? (between first day of menstrual bleeding to first day of next menstrual bleeding)		
3	How many days do you have menstrual bleeding per cycle usually?		
4	Do you have abnormally heavy bleeding?	1.Yes	2. No
5	Have you ever taken any treatment for any menstrual irregularities?	1.Yes	2. No

D	Risk factors	RESPONSES		
1	Do you have any family history of thyroid disease?	1.Yes	2.No	3.Don't Know
2	Do you have any personal history of thyroid disease?	1.Yes	2.No	3.Don't Know
3	Are you under treatment for any thyroid problem?	1,Yes		2. No
4	Are you using iodized salt for regular cooking?	1.Yes	2.No	3.Don't Know

Signature of the participant **Signature of the Investigator**

Part-I

Clinical Symptoms- Tamil

S.NO	CLINICAL SYMPTOMS			
A	**HYPOTHROIDISM**	**RESPONSES**		
1.	நீங்கள் அடிக்கடி சோர்வாக உள்ளிர்களா?	1.ஆம்	2. இல்லை	
2	உங்களின் எடை வேகமhf $டுகிறதா?	1.ஆம்	2. இல்லை	
3.	உங்களுக்கு ngUkghYk› F iwthf பசி vLf fwjh?	1.ஆம்	2. இல்லை	
4.	நீங்கள் சதை பிடிப்பு, மூட்டுவலி, உடல் பலவீனம் போன்றவற்றால் அடிக்கடி பாதிக்கப்படுகிறீர்களா?	1.ஆம்	2. இல்லை	
5.	நீங்கள் பகலில் வேலை நேரத்தில் தூக்க களைப்புடனும், இரவில் நெடுநேரம் தூங்கும் பழக்கத்துடனும் பெரும்பாலும் இருக்கிறீர்கள?	1.ஆம்	2. இல்லை	
6.	உங்களுக்கு உணவு அல்லது குடிநீர் விழுங்கும் போது பெரும்பாலும் கடினமாக உள்ளதா?	1.ஆம்	2. இல்லை	
7.	உங்களுக்கு குரல் கரகரப்பாக உள்ளதா?	1.ஆம்	2. இல்லை	
8.	உங்களுக்கு மyச்rக்கல் உள்ளதா?	1.ஆம்	2. இல்லை	
9.	உங்களால் பெரும்பாலும் குளிரை தாக்குப்பிடிக்க Kbat‰y i yah?	1.ஆம்	2. இல்லை	
10.	நீங்கள் பெரும்பாலம் மனச்சோர்வாக உள்ளீர்களா?	1.ஆம்	2. இல்லை	
11.	நீங்கள் அடிக்கடி மறதியால் பாதிக்கப்படுகிறீர்களா?	1.ஆம்	2. இல்லை	
B	**Hyperthyroidism**	**RESPONSES**		
1	உங்களுக்கு அதிகம் பசி எடுக்கிறதா?	1.ஆம்	2. இல்லை	
2	உங்களுக்கு எடை கூடாமலோ அல்லது குறைந்து கொண்டே இருக்கிறதா ?	1.ஆம்	2. இல்லை	
3	உங்களால் பெரும்பாலும் வெப்பத்தை தாக்குப்பிடிக்க முடியவில்லையா?	1.ஆம்	2. இல்லை	
4	நீங்கள் பெரும்பாலும் பதற்றமாகவோ அல்லது எரிச்சலாகவோ உணருகிறீர்களா?	1.ஆம்	2. இல்லை	
5	உங்களுக்கு படபடப்பு ஏற்படுமா?	1.ஆம்	2. இல்லை	
6	உங்களுக்கு உள்ளங்கை, நெற்றி போன்ற இடங்களில் அதிகமாக வியர்க்குமா?	1.ஆம்	2. இல்லை	
C	**MENSTRUAL HISTORY**	**RESPONSES**		
1.	நீங்கள் Gggilej taJ			
2	உங்களுக்கு எவ்வளவு நாட்களுக்கு ஒருமுறை மாதவிடாய் ஏற்படுகிறது?			
3	உங்களுக்கு எத்தனை நாட்கள் மாதவிடாய் ஏற்படுகிறது?			
4	உங்களுக்கு மாதவிடாய் காலத்தில் அதிகமாக இரத்த போக்கு ஏற்படுகிறதா?	1.ஆம்	2. இல்லை	
5	நீங்கள் மாதவிடாய் கோளாறை சரி செய்வதற்கு வைத்தியம் எடுத்துள்ளீர்களா?	1.ஆம்	2. இல்லை	
D	**D Risk factors**	**RESPONSES**		
1	உங்கள் குடும்பத்தில் உள்ளவர்களுக்கு தைராய்டு குறைபாடு உள்ளதா?	1.ஆம்	2. இல்லை	3.தெரிய வில்லை
2	உங்களுக்கு ஏற்கனவே தைராய்டு குறைபாடு கண்டறியப்பட்டதா?	1.ஆம்	2. இல்லை	3.தெரிய வில்லை
3	நீங்கள் தைராய்டு குறைபாட்டுக்காக வைத்தியம் செய்து கொண்டிருக்கிறீர்களா?	1.ஆம்		2. இல்லை
4	நீங்கள் சமையலுக்கு அயோடின் சேர்க்கப்பட்ட உப்பினை பயன்படுத்துகிறீர்களா?	1.ஆம்	2. இல்லை	3.தெரிய வில்லை

பங்கேற்பவர் கையொப்பம் **ஆராய்ச்சியாளர் கையொப்பம்**

2. B. CLINICAL EXAMINATION

1. Height in cms**:** **2.** Weight in kgs: 3. Radial pulse rate: 4. BP:

5. Swelling in the region of thyroid		
By inspection	1.Seen	2. Not seen
By palpation	1. felt	2. Not felt

6. **TSH value estimated**:

Signature of the Investigator

PART-II- Perceived Stress Scale

.

Study ID No: Date:

Name : Age :

Name of School/College : Current Educational status:

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling how often you felt or thought a certain way

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

S.NO	Questions	OPTIONS				
1	In the last month, how often have you been upset because of something that happened unexpectedly ?	0	1	2	3	4
2	In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3	In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4	In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5	In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6	In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7	In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8	In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9	In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Signature of the participant

PART-II- <u>உணரப்பட்ட மன அழுத்தத்தின் அளவு கோள்</u>

ஆய்வு சேர்க்கை எண் : **தேதி:**

பெயர் : வயது :

பள்ளி கூடம்/ கல்லூரி பெயர் : வகுப்பு / நிலை :

0. ஒருபோதும் இல்லை. 1. பெரும்பாலும் இல்லை . 2. எப்போதாவது .3. பெரும்பாலும் 4. அடிக்கடி

<u>உணரப்பட்ட மன அழுத்தத்தின் அளவு கோள்</u>

இந்த அளவுகோளில் உள்ள வினாக்களானது உங்களுடைய கடந்த மாதத்தின் எண்ணங்கள் மற்றும் உணர்வுகள் பற்றியதாகும். கீழ் உள்ள வினாக்களில் கூறப்பட்டுள்ளவாறு உங்களது எண்ணங்கள் மற்றும் உணர்வுகள் எவ்வளவு நேரம் இருந்தது என்பதை யோசித்து, கொடுக்கப்பட்டுள்ள விடைகளில் உங்களுக்கு மிகவும் பொறுத்தமான ஒன்றை வட்டமிடவும

வ.எண்	வினாக்கள்	விடைகள்				
1.	கடந்த மாதத்தில் எதிர்பாராத சம்பவங்களால் எவ்வளவு நேரம் மனபாதிப்புக்குள்ளானீர்கள்?	0	1	2	3	4
2	கடந்த மாததில் எதிர்கொண்ட முக்கியமான நிகழ்வுகள் உங்களை மீறி நடந்தது என்று எவ்வளவு முறை நீங்கள் உணர்ந்தீர்கள்?	0	1	2	3	4
3	கடந்த மாதத்தில், பதற்றமாகவும் மன அழுத்தமாகவும் எவ்வளவு நேரம் நீங்கள் உணர்ந்தீர்கள்?	0	1	2	3	4
4	கடந்த மாதத்தில், உங்களுக்கு ஏற்பட்ட பிரச்சனைகளை திறமையோடு எதிர்கொள்ள உறுதியாக இருந்தேன் என்று எவ்வளவு நேரம் நீங்கள் உணர்ந்தீர்கள்.?	0	1	2	3	4
5	கடந்த மாதத்தில் உங்களுக்கு ஏற்பட்ட நிகழ்வுகள் உங்கள் விருப்பத்தின் வழியே ஏற்பட்டது என்று எவ்வளவு நேரம் நீங்கள் உணர்ந்தீர்கள்?	0	1	2	3	4
6	கடந்த மாதத்தில், நீங்கள் செய்திருக்க வேண்டிய எல்லா செயல்களையும் உங்களால் செய்து முடிக்க முடியவில்லை என்று எவ்வளவு நேரம் நீங்கள் உணர்ந்தீர்கள்?	0	1	2	3	4
7	கடந்த மாதத்தில் உங்களுக்கு எரிச்சலூட்டும் நிகழ்வுகள் உங்களால் கட்டுபடுத்த முடிந்தது என்று எவ்வளவு நேரம் நீங்கள் உணர்ந்தீர்கள்?	0	1	2	3	4
8	கடந்த மாதத்தில் உங்களுக்கு ஏற்பட்ட பிரச்சனைகளை எதிர்கொள்வதில் நீங்கள் எவ்வளவு நேரம் மேல் ஓங்கி இருந்ததாக உணர்ந்தீர்கள்?	0	1	2	3	4
9	கடந்த மாதத்தில் உங்களுக்கு ஏற்பட்ட நீகழ்வுகள் உங்கள் விருப்பத்திற்கு மாறாக நடந்ததால் நீங்கள் எவ்வளவு நேரம் மனஉலச்சல் இருந்ததாக உணர்ந்தீர்கள்?	0	1	2	3	4
10	கடந்த மாதத்தில் உங்களால் கடக்க முடியாத அளவிற்கு உங்களது கஷ்டம் பெருகிக் கொண்டே போகிறது என்று எவ்வளவு நேரம் நீங்கள் உணர்ந்தீர்கள்?	0	1	2	3	4

பங்கேற்பவர் கையொப்பம்

ANNEXURE – II

INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE, CHENNAI 600 003

EC Reg.No.ECR/270/Inst./TN/2013
Telephone No.044 25305301A
Fax: 011 25363970

CERTIFICATE OF APPROVAL

To
Dr.N.P.Rubesh Sharma
II Year Post Graduate in MD Community Medicine
Institute of Community Medicine
Madras Medical College
Chennai 600 003

Dear Dr.N.P.Rubesh Sharma,

The Institutional Ethics Committee has considered your request and approved your study titled **"THYROID DYSFUNCTION AND ITS ASSOCIATED FACTORS AMONG LATE ADOLESCENT GIRLS – A CROSS-SECTIONAL STUDY IN SALEM DISTRICT OF TAMIL NADU - 2017 " NO. 20122016.**

The following members of Ethics Committee were present in the meeting hold on **14.12.2016** conducted at Madras Medical College, Chennai 3

1.Dr.C.Rajendran, MD.,	:Chairperson
2.Dr.M.K.Muralidharan,MS.,M.Ch.,Dean, MMC,Ch-3	:Deputy Chairperson
3.Prof.Sudha Seshayyan,MD., Vice Principal,MMC,Ch-3	: Member Secretary
4.Prof.B.Vasanthi,MD., Prof.of Pharmacology.,MMC,Ch-3	: Member
5.Prof.A.Rajendran,MS, Prof. of Surgery,MMC,Ch-3	: Member
6.Prof.N.Gopalakrishnan,MD,Director,Inst.of Nephrology,MMC,Ch	: Member
7.Prof.Baby Vasumathi,MD.,Director, Inst. of O & G	: Member
8.Prof.K.Ramadevi,MD.,Director,Inst.of Bio-Che,MMC,Ch-3	: Member
9.Prof.R.Padmavathy, MD, Director,Inst.of Pathology,MMC,Ch-3	: Member
10.Prof.S.Mayilvahanan,MD,Director, Inst. of Int.Med,MMC, Ch-3	: Member
11.Tmt.J.Rajalakshmi, JAO,MMC, Ch-3	: Lay Person
12.Thiru S.Govindasamy, BA.,BL,High Court,Chennai	: Lawyer
13.Tmt.Arnold Saulina, MA.,MSW.,	:Social Scientist

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

Received
N.P.Rubesh
20/1/17

Member Secretary – Ethics Committee

MEMBER SECRETARY
INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE
CHENNAI-600 003

ANNEXURE – III

PERMISSION LETTER FROM DPH

R.No.112578/HEB/A2/2016

Office of the Director of Public Health
And Preventive Medicine, Chennai-6.
Date: 28.12.2016

Sub: Public Health – Dr.N.P.Rubesh Sharma, II Year M.D. Community Medicine, Madras Medical College, Chennai-3 – Request permission to conduct study in late adolescent female students – Salem District – reg.

Ref: 1) Letter dated 26.12.2016 from Dr.N.P.Rubesh Sharma, II Year M.D. Community Medicine, Institute of Community Medicine, Madras Medical College, Chennai-3.

2) G.O.(D) No.648, Health and Family Welfare Department, dated 02.06.09.

** ** **

Dr.N.P.Rubesh Sharma, II Year Posts Graduate in M.D. Community Medicine, Institute of Community Medicine, Madras Medical College, Chennai – 600 003 is permitted to conduct study titled "A study of thyroid dysfunction and its associated factors among late adolescent girls – A corss-sectional study in Salem district of Tamil Nadu – 2017". He is permitted to undertake the study in Salem District of Tamil Nadu with the following conditions:-

1) The data should be kept confidential and the report should not be published without the permission of the Government.

2) The Data should be used for the Project Work only.

3) Study report should be submitted to the Director of Public Health and Preventive Medicine.

4) If there is any deviation in the above action, action will be taken against the individual.

5) The study should not be detrimental to the normal functioning of the Institution.

6) The views of the department should be obtained before finalizing the report for submission.

P.t.o.

7) Progress of data collection should be appraised at each stage.

8) Study should have institutional ethics committee approval.

9) Consent form should be obtained from the study participant after giving the information sheet.

10) Data on sensitive issues relating to Cancer, AIDS, Mental Health and Drugs related need not be given.

K.KOLANDASWAMY
Director of Public Health and
Preventive Medicine, Chennai-6.

To

Dr.N.P.Rubesh Sharma,
IInd year Post Graduate in M.D. Community Medicine,
Institute of Community Medicine,
Madras Medical College,
Chennai – 600 003.

Through: The Director,
Institute of Community Medicine,
Madras Medical College, Chennai-3.

Copy to: The Deputy Director of Health Services, Salem.
Copy to: The Chief Educational Officer, Salem.
Spare - 1

// True Copy // Forwarded //

28/12/16

For Director of Public Health and
Preventive Medicine, Chennai-6.

28/12/16

ANNEXURE – IV

PERMISSION LETTER FROM DDHS, SALEM

R.No.4/E1/2017 dated9.02.2017

Office of the Deputy Director of

Health Services, Salem.

Sub: Public Health- Dr.N.P.Rubesh Sharma, II Year MD Community Medicine, Madras Medical College, Chennai 3 – permission to conduct study in late adolescent female students- Salem District.

Ref: 1) R.No.112578/HEB/A2/2016 dated 28.12.2016 of the Director of Public Health and Preventive Medicine, Chennai 6.

2) Representation dated 11.01.2017 of Dr.N.P.Rubesh Sharma.

())

Vide reference 1st cited, Dr.N.P.Rubesh Sharma, II Year MD Community Medicine, Madras Medical College, Chennai has been permitted to conduct study titled" A study of Thyroid dysfunction and its associated factors among late adolescent girls- A cross-sectional study in Salem District of TamilNadu-2017.

Hence he is permitted to conduct study in Salem District.

9/2/17

Deputy Director of Health Services,

Salem.

9/2/17

To

Dr.N.P.Rubesh Sharma, II Year MD Community Medicine, Madras Medical College, Chennai.

ANNEXURE – V

PERMISSION LETTER FROM CEO, SALEM.

முதன்மைக் கல்வி அலுவலகம், சேலம் – 636 001

ஒ.மு.எண்.9436 /பி3/2017. நாள் .06.2017.

பொருள் .. அனுமதி – Dr.N.P.Rubeshsharma, II Year M.D. Community Medicine, Institute of Community Medicine, Madras Medical College, Chennai-3 என்பார் சேலம் வருவாய் மாவட்டத்தில் உள்ள அரசு மேல்நிலைப் பள்ளிகளில் பயிலும் மாணவிகளுக்கு தைராய்டு நோய் கண்டறிதல் சார்பான பரிசோதனை செய்ய அனுமதித்தல் – சார்பு.

பார்வை .. Dr.N.P.Rubeshsharma, II Year M.D. Community Medicine, Institute of Community Medicine, Madras Medical College, Chennai-3 என்பார் மனு நாள் 07.06.2017.

பார்வையில் கண்டுள்ள Dr.N.P.Rubeshsharma, என்பார் சேலம் வருவாய் மாவட்டத்தில் உள்ள அரசு மேல்நிலைப் பள்ளிகளில் பயின்று வரும் மாணவியர்களுக்கு தைராய்டு நோய் கண்டறிதல் சார்பாக அனுமதி கோரிய மனு பரிசீலிக்கப்பட்டதில், சேலம் வருவாய் மாவட்டத்தில் உள்ள அனைத்து மேல்நிலைப் பள்ளிகளில் மேற்கண்ட மருத்துவ பரிசோதனை குறித்து ஆய்வு மேற்கொள்ள கீழ்க்கண்டுள்ள நிபந்தனைகளுக்குட்பட்டு அனுமதிக்கப்படுகிறது.

1) பள்ளியில் ஆசிரியர்கள் / மாணவர்களின் கற்றல், கற்பித்தல் பணிகளுக்கு எவ்வித பாதிப்பும் ஏற்படுத்தக் கூடாது.
2) தலைமை ஆசிரியர் குறித்த நேரத்தில் பள்ளியில் ஆய்வு மேற்கொள்ளலாம்.
3) எவ்வித புகார்களுக்கும் இடமளிக்காமல் ஆய்வுப் பணியினை மேற்கொள்ளலாம்.

மேற்படி மருத்துவர் திரு. என்.பி.ருபேஸ்சர்மா என்பார் பள்ளிகளில் மருத்துவ ஆய்வு மேற்கொள்ள வரும்போது அரசு மேல்நிலைப் பள்ளி தலைமை ஆசிரியர்கள் உரிய ஒத்துழைப்பினை நல்குமாறு கேட்டுக் கொள்ளப்படுகிறார்கள்.

முதன்மைக் கல்வி அலுவலர்,
சேலம்

பெறுநர்

1) Dr.N.P.Rubeshsharma, II Year M.D. Community Medicine, Institute of Community Medicine, Madras Medical College, Chennai-3
2) தலைமை ஆசிரியர், அனைத்து அரசு / நகரவை மேல்நிலைப் பள்ளிகள், சேலம் வருவாய் மாவட்டம்.

ANNEXURE – VI

INFORMATION SHEET

"Thyroid dysfunction and its associated factors among late adolescent girls- A cross-sectional study in Salem district of Tamil Nadu-2017"

The thyroid gland is located in the neck and is shaped like a butterfly. Thyroid hormones made by the thyroid gland are important for growth and development and puberty. When the thyroid gland produces less or excess or in effective hormones it is called as thyroid dysfunction.

According to a study conducted in Madurai, "One out of every eight young women in south India has thyroid dysfunction". It can lead to wide range of complication like infertility, metabolic disorders, cardiovascular disease, cognitive dysfunction like depression, learning disturbance, musculoskeletal disorders, goiter, myxedema, thyroid cancers and co-morbid conditions like hypertension. It is important to diagnose the thyroid dysfunction problem earlier because simple treatment can help prevent long-term problems. Thyroid disease suspected by clinical history and physical examination is confirmed by laboratory tests. Laboratory tests usually measure levels of TSH and thyroid hormones.

In this study, we will screen you for thyroid dysfunction by asking questions regarding your demographic profile and the history regarding thyroid problems, along with clinical examination and lab test. To participate in the study you/your child need to come empty stomach in the morning . Around 2 ml of blood will be will be drawn by putting a needle into a vein in your/(your child's) arm and taken in test tube for analysis of thyroid stimulating hormone level in the blood. Following which a questionnaire on the perceived stress will be given to you and requested to fill the questionnaire. The lab report will be given to you and advised accordingly. The privacy of the participants in the research will be maintained throughout the study. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared.

Taking part in this study is voluntary. You are free to decide whether to participate in this study or to withdraw at any time. Your decision will not result in any loss of benefits to which you are otherwise entitled.

The results of the special study may be intimated to you at the end of the study period or during the study if anything is found abnormal which may aid in the management or treatment or prevention.

Signature of investigator **Signature or Thumb impression of participant.**

Date: **Date:**

Maitg gwwpa jfty

2017 Mk MzL jkpoehlbd Nryk khtlljij rhhej gpejpa tshpsk gUtgngzfspd kjjpapy ijuhaL gpworrp kwWk mjDld njhlhGila fhuzpfs gwwpa xU FWffhaT.

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ijuhaL Rugg fOjjpd KdgFjpapy mikeJss gllhkGrrp tbtpy css RuggpahFk. mrRugg RufFk ijuhaL `hhNkhdfs tshrrpfFk gUtiljYfFk kpfTk Kffpakhfk. ijuhaL Rugg Fiwthd› mjpfkhd myyJ Rukww `hhNkhdfisr RuggNj ijuhaL gpworrp MFk.

kJiuapy eljjggll Xh Matpdgb vlby xU njddpejpa ,skngz ZfF ijuhaL gpworrp ,Uffpwj. ijuhaL gpworrpahy kylLjjdik› fwwy ,ilAWfs› tshrpijkhww NfhshW› ,Uja Nehafs kdmOjjk Nghdw GyZzhT NfhshW› jirf$lL rhFiyTfs› KdfOjJffoiy› ijuhaL Fiwthy VwgLk cly ehfflL› ijuhaL GwWNehafs kwWk ,ujjfnfhjpgG› eupoT› Nghdw gy rpffyfs ijuhaL gpworrpia Kd$lbNa fzlwptJ Kffpakhfk. Vnddpy vspa rpfprir %yk ezl fhy gpurridfisj jtphffyhk.

kUjJt tuyhW kwWk cly ghpNrhjid %yk mwpaggLfpdw reNjfjjpwFhpa ijuhaL gpworrp gpurridfis MaTf$l gupNrhjidfs %yk cWjpnraayhk. mrNrhjidfs toffkhf ijuhaL `hhNkhdfs kwWk (TSH) vdggLk ijuhaL CfFtpfFk `hhNkhd Mfpatwwpd msit mstpLd.

,ej Matpy› cqfsJ jdpegh tpguk› ijuhaL gpurridfs gwwpa kUjJt jftyfs› cly ghpNrhjid kwWk ,ytr ,ujjgghpNrhjid Mfpatwwpd %yk ijuhaL gpworrp fzlwpaggLk. ,jpy gqNfwf eqfs / cqfs Foeij fhiyapy ntWk tapwpy tuNtzLk. Rkhh 2 kpyypmsT ,ujjk cqfs / cqfs Foeijapd ifapy css ,ujj ehsjjpy ,UeJ xU Crp %yk vLffgglL ghpNrhjidfF mDggp itffggLk.

mjd gpddh czuggll kzmOjjk gwwpa xU Nfstpjjhs cqfslk nfhLjJ mjwF gjpyspff NflLfnfhssggLthfs. MaT KbTfs cqfSfF mwptpffgglL› mjwNfwg eqfs mwpTWjjggLthfs.

,ej Matpd KbTfis myyJ fUjJffis ntspapLk NghNjh myyJ Matpd NghNjh jqfsJ ngaiuNah myyJ milahsqfisNah ntspapl khlNlhk vdgijAk njhptpjJfnfhsfpNwhk.

,ej Matpy gqNfwgJ jqfSila tpUggjjpd Ngupy jhd ,UffpwJ.

,ej rpwgG ghpNrhjidapd KbTfis Matpd Kbtpd NghJ jqfSfF mwptpgNghk vdgijAk njhptpjJfnfhsfpNwd.

Muharrpahsh ifnahggk. **rkkejkjUNthhpd ifnahggk**

INFORMED CONSENT FORM

"Thyroid dysfunction and its associated factors among late adolescent girls- A cross-sectional study in Salem district of Tamil Nadu-2017"

Name of the participant: **Age/Sex:**

Study ID No: **Date:**

1. I have been explained in detail about the study and its procedure. I confirm that I had completely understood the study and have had the opportunity to ask questions.
2. I understand that my participation in the study is voluntary and that I'm free to withdraw at any time, without giving any reason, without their medical care or legal rights being affected.
3. I understand that the principal investigator, others working on the investigator's behalf, the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However I understand that my identity will not be revealed in any information released to third parties or published.
4. I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s).
5. I agree to my participation in the above study.

Signature of investigator **Signature or Thumb impression of the participant**

Date: **Date:**

ஆய்வு ஒப்புதல் கடிதம்

2017 Mk; Mz;L jkpHe;hlpd; nryk; khtl;lj;ij rhh;ej; gpe;jpa tsupdk; gUtg;bgz;fspd; kjj;papy; ijuha;L gpwHr;rp kwWk; mjDld; bjhlhgila fhuzpfs; gwwpa xU FWf;fha;t/

பெயர்: **வயது:** **பால்:**

ஆய்வு சேர்க்கை எண்: **தேதி:**

1. இந்த ஆய்வின் விவரங்களும் அதன் நோக்கங்களும் முழுமையாக எனக்கு தெளிவாக விளக்கப்பட்டது. எனக்கு விளக்கப்பட்ட விஷயங்களை நான் புரிந்து கொண்டு நான் எனது சமதத்தைத் தெரிவிக்கிறேன்.

2. இந்த ஆய்வில் பிறரின் நிர்பந்தமின்றி என் சொந்த விருப்பத்தின் பேரில் தான் பங்கு பெறுகிறேன் மற்றும் நான் இந்த ஆய்விலிருந்து எந்நேரமும் வெளியேறலாம் என்பதையும் அதனால் எந்த பாதிப்பும் ஏற்படாது என்பதையும் நான் புரிந்து கொண்டேன்.

3. இந்த ஆய்வின் விவரங்களை கொண்ட தகவல் தாளை பெற்றுக்கொண்டேன். நான் என்னுடைய சுயநினைவுடன் மற்றும் முழு சுதந்திரத்துடன் இந்த மருத்துவ ஆய்வில் என்னை சேர்த்துக்கொள்ள சம்மதிக்கிறேன்.

4. ஆய்வாளர் மற்றும் அவரை சார்ந்தவர்களோ நெரிமுறைக்குழு உருப்பினர்களோ நான் இந்த ஆய்விலிருந்து விலகினாலும் என்னுடைய அனுமதியின்றி எனது உடல்நிலை குறித்த தகவல்களை இந்த ஆய்விற்கோ இது தொடர்பான வேற ஆய்விற்கோ பயன்படுத்திக்கொள்ள முடியும் என்று புரிந்து கொண்டு சம்மதம் அளிக்கிறேன். ஆனாலும் எனது அடையாளம் வெளியிடப்பட மாட்டாது என்பதை புரிந்து கொள்கிறேன்.

5. இந்த ஆய்வின் தகவல்கலையும் முடிவுகளையும் அறிவியல் நோக்கத்திற்காக பயன்படுத்துவதற்கு நான் அனுமதிக்கிறேன். இந்த ஆய்வில் பங்குப்பெற நான் சம்மதிக்கிறேன்.

ஆராய்ச்சியாளர் கையொப்பம் **பங்கேற்பாளர் கையொப்பம்**

INFORMED PARENT'S CONSENT FORM

"Thyroid dysfunction and its associated factors among late adolescent girls- A cross-sectional study in Salem district of Tamil Nadu-2017"

Name of the participant: **Age/Sex:**

Study ID No: **Date:**

1. I have been explained in detail about the study and its procedure. I confirm that I had completely understood the study and have had the opportunity to ask questions.

2. I agree to my daughter's_____ participation in the above study.

SIGNATURE OF INVESTIGATOR

DATE:

NAME:

PHONE NO:

Signature or Thumb impression of the person

Date:

NAME:

RELATIONSHIP WITH THE SUBJECT:

PHONE NO:

பெற்றோர் ஒப்புதல் படிவம்

2017 Mk MzL jkoehlbd Nryk khtlljij rhhej gejpa tshsk gUtgngz fsd kjjpay ijuhaL gworrp kwWk mjDld njhlhGila fhuzfs gwwpa xU FWffhaT.

பங்கு பெறுபவரின் பெயர் : தேதி:

வயது :

ஆய்வு சேர்க்கை எண் :

1. இங்கு நடைபெறுகின்ற ஆய்வைப்பற்றிய முழுத் தகவலையும் அது நடைபெறுகின்ற காரணத்தையும் நான் நன்கு அறிவேன்.

2. நான் இந்த ஆய்வில் எனது மகள்

---------- கலந்து கொள்ள சம்மதிக்கிறேன்

.

ஆய்வாளரின் கையொப்பம்.
தேதி:

பெயர்:

கைபேசி எண்.

பெற்றோரின் கையொப்பம்
தேதி:

பெயர்:

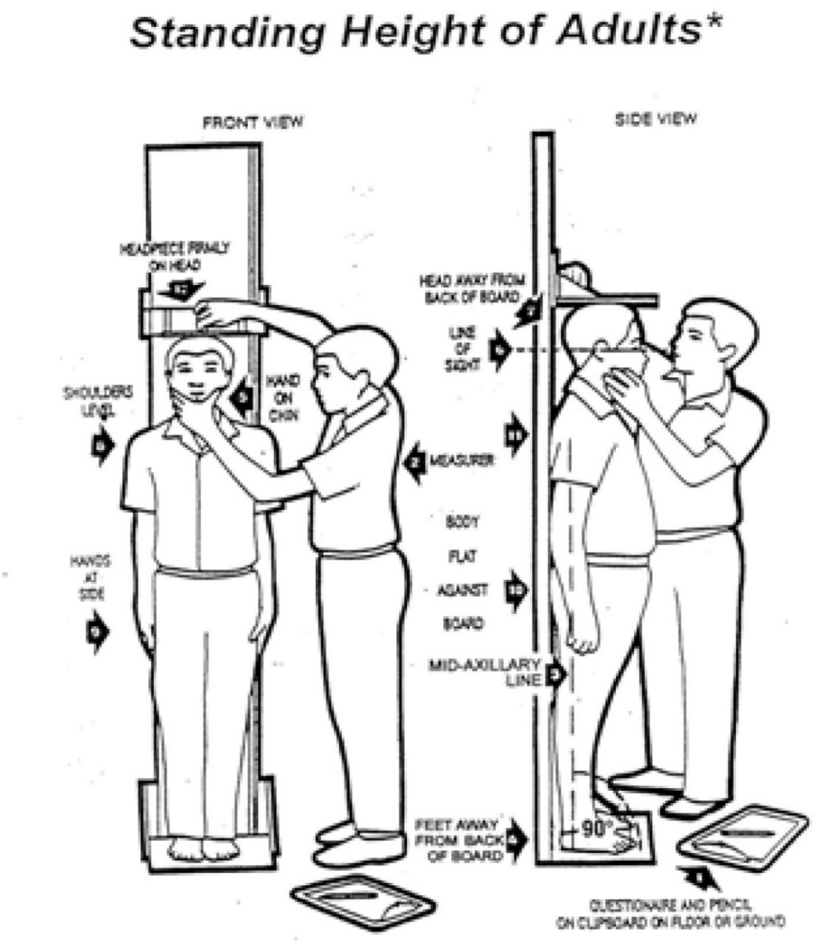
வயது:

பாலினம்.:

ANNEXURE VII

HEIGHT & WEIGHT EXAMINATION

Illustration 3

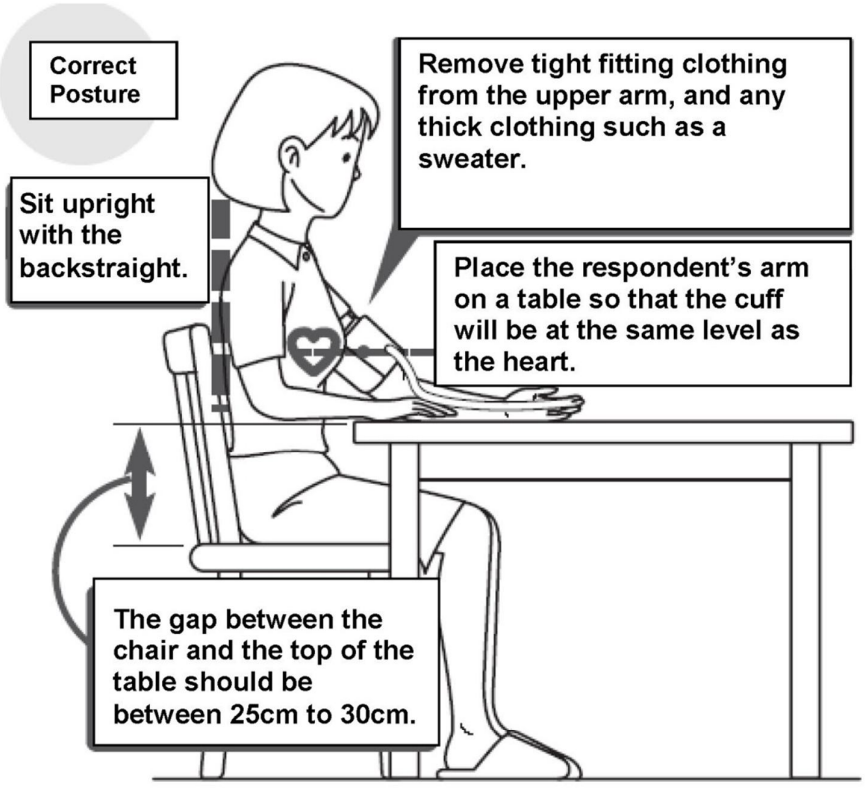


* From: "Anthropometry as Part of Household Surveys", I.J. Shorr, The World Bank, Washington, D.C., (in press)

6. **Measurer:** Ask the person to look straight ahead. Cup the respondent's chin between the thumb and index finger of your left hand and gradually close your hand (Arrow 5). Position the person's head so that the line of sight is parallel to the ground (Arrow 6). Note that with most adults, the back of the head will not touch the back of the stadiometer—there will be a space between the back of the person's head and the back of the stadiometer (Arrow 7). After you have placed the person's head in the proper position, release your hand from the person's chin and ask him/her to hold his/her head in the position you have just placed it in.

   Make sure the person's shoulders are level (Arrow 8), the hands are at the person's side (Arrow 9), and at least the buttocks touches the back of the stadiometer). Note that with most adults, only the buttocks and perhaps the shoulder blades, will touch the back of the stadiometer (Arrows 10 & 11).

HOW TO SEAT THE RESPONDENT CORRECTLY WHEN TAKING A MEASUREMENT



Notes:

- Measurements should be taken in a quiet place. The respondent should be in a relaxed, seated position.
- Make sure that the room is not too hot or cold.
- The respondent should avoid eating, smoking, or **exercising for at least 30 minutes before having a measurement taken.**
- The respondent should not move or talk during the measurement procedure.
- Do not place the cuff over thick clothes and do not roll up the sleeve if it is too tight.

Correct posture during measurement is necessary to get accurate results. Examples of incorrect posture:

- Arched back (leaning forwards)
- Sitting cross-legged
- Seating the respondent on a sofa or at a low table so that the respondents tend to lean forward.

These situations could lead to higher blood pressure values due to strain or the arm cuff being lower than the heart.

ANNEXURE VIII

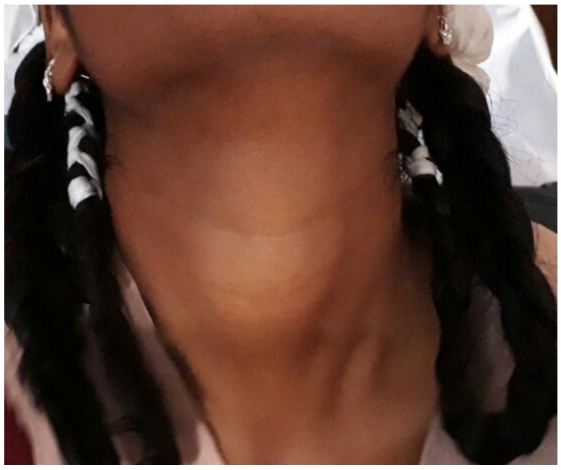
VITALS EXAMINATION

After explaining the procedure and allaying the anxiety, in sitting position of the subject, the pulse rate was counted and the blood pressure of the right upper limb was measured using electronic BP monitoring apparatus**.** Three readings were taken at interval of 5 minutes. First reading was discarded as it was done to demonstrate the procedure as most of the people were anxious of the procedure. The average of the next two readings was noted.

ANNEXURE – IX

GOITRE EXAMINATION

The subject to be examined stands in front of the examiner, who looks carefully at the neck for any sign of visible thyroid enlargement. The subject is then asked to look up and thereby to fully extend the neck. This pushes the thyroid forward and makes any enlargement more obvious.



Finally, the examiner palpates the thyroid by gently sliding his / her own thumb along the side of the trachea (wind-pipe) between the cricoid cartilage and the top of the sternum. Both sides of the trachea are checked. The size and consistency of the thyroid gland are carefully noted. If necessary, the subject is asked to swallow (e.g. some water) when being examined - the thyroid moves up on swallowing. The size of each lobe of the thyroid is compared to the size of the tip (terminal phalanx) of the thumb of the subject being examined. Goitre is graded according to the classification.

Grade 0	"No palpable or visible goitre."
Grade 1	"A goitre that is palpable but not visible when the neck is in the normal position, (i.e., the thyroid is not visibly enlarged). Thyroid nodules in a thyroid which is otherwise not enlarged fall into this category."
Grade 2	"A swelling in the neck that is clearly visible when the neck is in a normal position and is consistent with an enlarged thyroid when the neck is palpated."

ANNEXURE – X

TSH REFERENCE RANGE

Thyrocare
Senthil Towers,1078,
Avanashi Road,
Coimbatore - 641 018

Thyrocare®
Think Thyroid. Think Thyrocare.

Corporate Office : **Thyrocare Technologies Limited** D-37/3, TTC MIDC, Turbhe, Navi Mumbai - 400703
022 - 3090 0000 / 4125 2525 wellness@thyrocare.com www.thyrocare.com

REPORT

NAME : S R DHIVYA (16Y/F)
REF. BY : SELF
TEST ASKED : TSH

SAMPLE COLLECTED AT :
JAYARANI GIRLS HR SECONDARY SCHOOL, ANNADHANAPATTY, SALEM

TEST NAME	TECHNOLOGY	VALUE	UNITS	REFERENCE RANGE
THYROID STIMULATING HORMONE (TSH)	C.L.I.A	2.50	µIU/ml	0.3-5.5

Please correlate with clinical conditions.

Method :
TSH - ULTRA SENSITIVE SANDWICH CHEMI LUMINESCENT IMMUNO ASSAY

Pregnancy reference ranges for TSH
1st Trimester : 0.10 - 2.50
2nd Trimester : 0.20 - 3.00
3rd Trimester : 0.30 - 3.00

Reference:
Guidelines of American Thyroid Association for the Diagnosis and Management of Thyroid Disease During Pregnancy and Postpartum, Thyroid, 2011, 21; 1-46

Please note above printed references are applicable only for ADULT

Refer below said table for < 18 years reference range

TEST	1 - 3 D	4 - 30 D	31 - 60 D	61 D - 12 M	1 - 5 Y	6 - 10 Y	11 - 14 Y	15 - 18 Y
TSH	0.1-9.2	0.2-8.5	0.2-7.8	0.30-5.9	0.4-4.8	0.5-4.7	0.5-4.6	0.6-4.5
T3	41.7-272.1	48.2-272.1	54.7-272.1	76.8-272.1	89.2-246.7	87.2-218.1	86.6-199.8	85.3-188.8
T4	4.9-15.8	5-15.3	5.2-14.8	5.7-13.3	5.7-11.7	5.4-10.7	5.2-10	5.1-9.6
FT3	1.5-5.3	1.6-5.2	1.6-5.1	1.8-4.8	2-4.5	2.1-4.4	2.3-4.4	2.3-4.3
FT4	0.84-2.08	0.85-1.98	0.85-1.89	0.89-1.62	0.89-1.48	0.85-1.46	0.84-1.45	0.84-1.45

~~ End of report ~~

Sample Collected on (SCT) : 01 Jul 2017 08:31
Sample Received on (SRT) : 01 Jul 2017 23:36
Report Released on (RRT) : 02 Jul 2017 01:15
Sample Type : SERUM
Labcode : 010739685/A3970
Barcode : F6967285

Dr.Subramaniam MD

Dr.Caesar Sengupta MD

ANNEXURE – XI

B. G. PRASAD SCALE

Prasad social classification update

ENTER THE CURRENT CPI(IW) HERE :		
	274	Type and click the 'Calculate' button
Social Class	Original classification (Rs./month)	
I	100	and above
II	50	99
III	30	49
IV	15	29
V	Below	15
Social Class	Latest Revision (Rs./month)	
I	6254	and above
II	3127	6253
III	1876	3126
IV	938	1875
V	937	and below

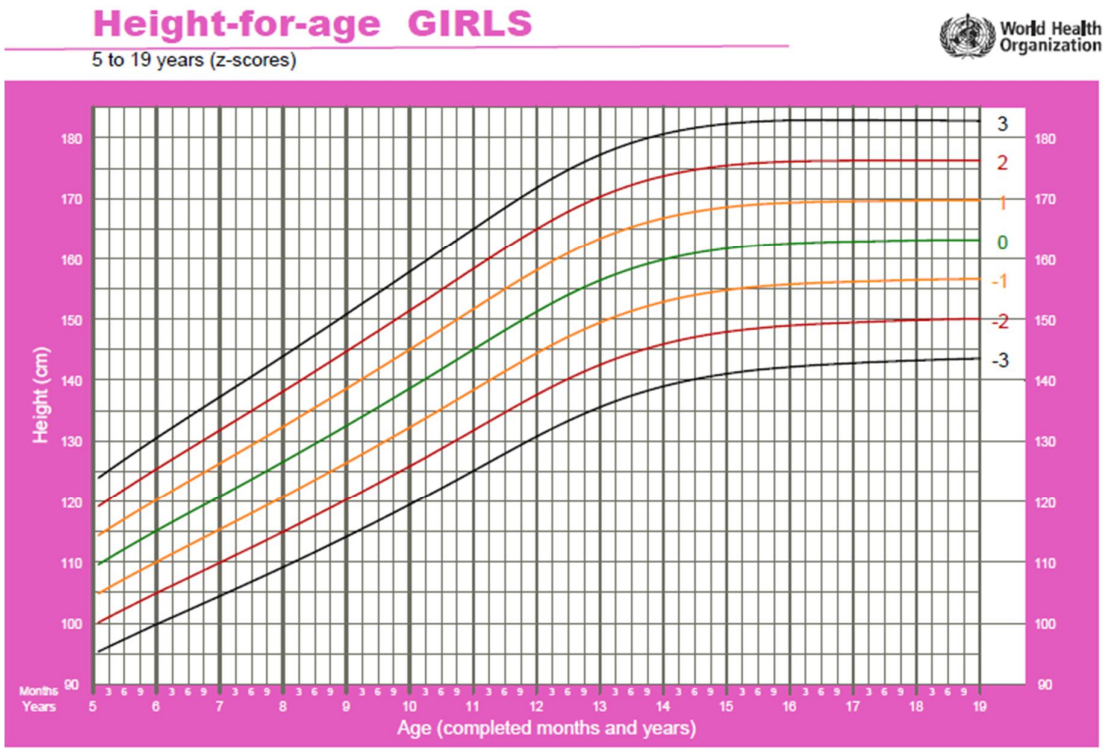
This is a realtime update for the Prasad's social classification. No further calculations are required for categorization.
The class calculated as per the tool above, is the final categorization.

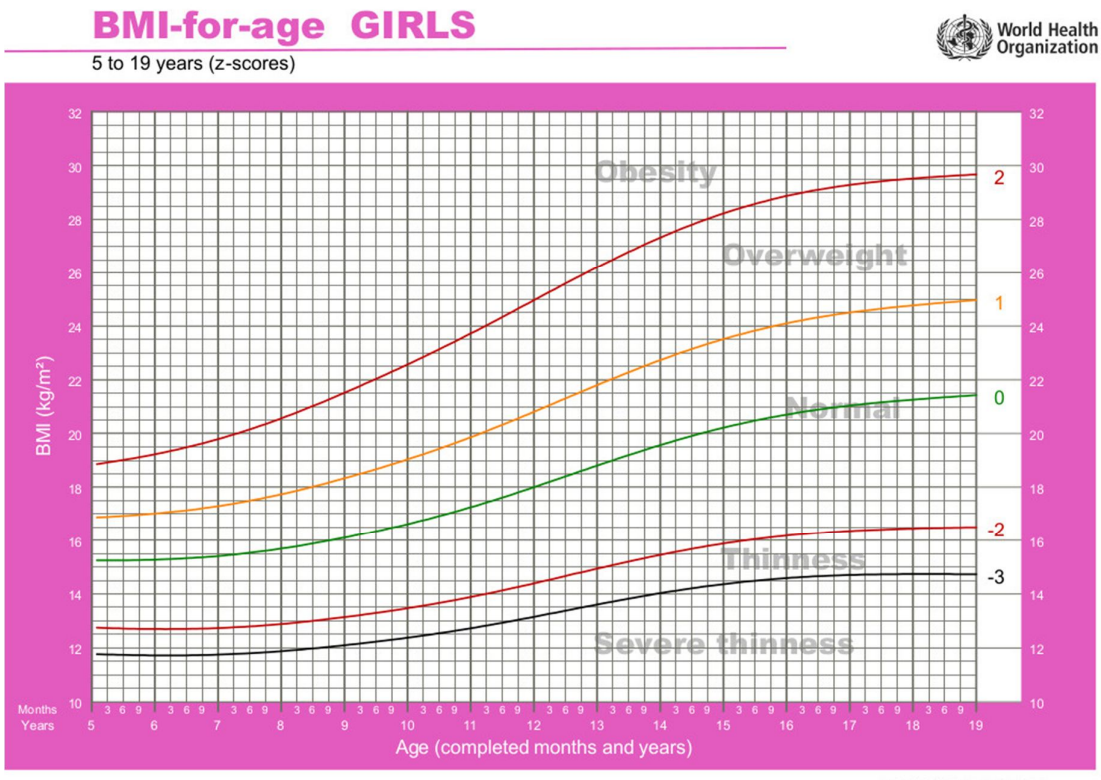
For further details of the scale and revision, please see the following article:
Revision of Prasad's Social Classification and Provision of an Online Tool for Real-Time Updating. South Asian Journal of Cancer;
Available here: SAJC full article (http://journal.sajc.org/article.asp?issn=2278-330X;year=2013;volume=2;issue=3;spage=157;epage=157;aulast=Sharma)

The CPI(IW) of Salem for June- 274 Source Internet Available From (http://labourbureaunew.gov.in/LBO_indnum.htm).

ANNEXURE – XII

WHO REFERENCE CHART: HEIGHT FOR AGE FOR GIRLS 5-19 yrs





2007 WHO Reference

ANNEXURE XIII - MASTER CHART

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
1	1	1	1	16	5500	5	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	12	30	3	2	1	2	2	2	1	0	0	0	1	0	2	0	0	1	0	144	46	92	114	70	1	4.68
2	1	1	1	18	25000	5	2	2	2	2	2	2	2	2	1	2	2	2	1	1	2	2	2	11	30	5	2	2	1	2	2	3	2	1	1	1	1	0	0	0	0	1	149	36	88	100	70	2	0.63
3	1	1	1	17	5000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2	13	30	5	2	2	2	2	2	1	0	0	0	1	2	1	1	2	1	2	155	39	82	120	70	1	7.62
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21	1	1	1	15	29000	7	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	13	30	3	2	2	2	2	2	1	1	2	1	1	3	2	4	1	2	3	153	47	98	110	80	2	2.64
22	1	1	1	15	2500	5	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	666	666	666	666	2	2	2	2	1	3	2	0	3	1	2	2	3	3	1	132	24	96	100	60	2	1.99
23	1	1	1	15	7000	5	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	13	30	7	1	1	3	2	2	1	1	2	1	1	1	1	1	1	1	1	147	41	86	104	60	1	2.08
24	1	1	1	19	5000	5	2	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	13	30	4	1	2	3	2	2	1	1	2	1	1	3	2	4	1	2	2	140	35	77	110	60	2	1.72
25	1	1	1	15	5000	4	1	2	2	1	2	2	2	2	2	2	2	2	2	1	1	1	2	13	30	5	2	2	3	2	2	2	1	2	1	1	1	1	1	1	2	1	160	49	90	120	80	2	2.7
26	1	1	1	15	7000	6	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	1	2	10	30	8	1	1	3	2	2	1	1	1	2	4	1	2	1	2	1	2	154	39	86	110	60	1	2.1
27	1	1	1	15	8000	4	1	2	2	2	1	2	2	2	2	1	2	1	2	1	2	2	1	12	30	5	1	1	2	2	2	1	1	1	2	1	1	2	1	2	1	1	155	42	90	115	70	1	5.9
28	1	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	5	2	2	3	2	2	1	1	1	1	4	1	1	2	2	1	3	140	38	82	130	70	1	99.3
29	1	1	1	16	8000	5	2	1	1	2	2	2	2	2	2	2	1	1	2	1	2	2	1	11	30	5	2	2	2	2	2	1	0	0	1	1	3	1	2	3	4	2	158	38	90	110	70	1	3.7
30	1	1	1	18	20000	5	1	2	2	1	1	2	2	2	1	2	2	2	2	2	2	2	2	12	30	2	2	1	2	2	2	1	1	2	2	1	3	1	1	0	3	2	152	39	102	120	82	2	4.61
31	1	1	1	15	2000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	13	30	5	2	2	3	2	2	1	1	1	2	1	1	2	1	2	1	1	136	40	90	120	80	2	3.81
32	1	1	1	15	7000	4	2	1	2	2	2	1	1	1	2	1	1	2	2	1	1	2	2	10	35	4	2	2	3	2	2	1	1	1	0	2	3	1	0	0	0	1	148	40	86	86	70	1	3.28
33	1	1	1	18	7000	6	2	2	2	1	1	2	2	1	2	2	1	2	2	2	2	1	1	13	35	7	1	2	2	3	2	2	0	0	1	2	2	1	3	4	1	0	154	47	82	126	78	1	3.58
34	1	1	1	15	10500	5	2	2	1	2	2	1	2	2	2	2	1	2	2	2	2	2	2	13	31	5	2	2	2	3	2	2	1	2	1	1	2	0	0	3	4	2	155	45	75	138	89	1	2.46
35	1	1	1	17	2000	4	2	2	2	2	2	1	2	2	1	2	2	2	2	1	1	1	1	12	40	4	2	2	2	3	2	1	2	1	2	3	2	3	2	1	1	3	141	47	80	110	70	2	1.08
36	1	1	1	17	9000	5	1	2	1	2	1	1	2	2	2	1	1	2	2	1	2	1	1	12	28	5	2	2	3	2	2	2	1	1	2	0	0	1	2	0	2	3	156	47	78	123	96	2	1.15
37	1	1	1	17	8000	3	2	2	1	2	2	1	2	2	2	2	1	2	1	2	2	2	2	12	29	4	2	2	3	2	2	1	0	1	0	0	2	1	0	3	1	2	158	51	80	128	89	1	2.19
38	1	1	1	17	4000	4	1	2	2	1	2	1	1	2	2	2	1	1	1	2	2	1	1	12	50	4	2	1	3	2	2	1	2	4	3	2	3	1	0	3	4	2	153	45	70	106	68	1	7.03
39	1	1	1	17	5500	3	2	2	1	1	2	1	1	2	2	1	1	2	2	1	1	1	1	14	48	3	2	1	3	3	2	2	1	1	2	3	4	1	1	0	0	3	154	43	82	126	89	2	0.6
40	1	1	1	18	11000	4	1	2	1	2	1	2	2	1	2	1	2	2	1	1	1	2	2	13	28	4	2	2	2	2	2	2	0	1	1	2	0	0	2	3	1	2	152	45	70	119	89	1	1.48
41	1	1	1	15	6000	3	1	2	2	2	2	2	2	2	1	1	1	2	1	1	1	2	2	11	31	3	2	2	3	2	2	1	1	2	1	1	2	2	1	0	1	3	155	46	90	136	96	2	1.81
42	1	1	1	17	14000	5	1	2	2	2	2	2	2	1	1	1	2	1	1	2	2	1	2	11	48	5	2	2	3	2	2	2	0	1	2	1	2	0	2	1	2	2	158	37	70	100	60	1	1.35
43	1	1	1	15	9000	5	2	2	1	2	1	2	2	1	2	1	1	2	1	1	1	2	1	13	30	6	1	1	3	1	2	2	0	1	2	3	1	0	0	1	2	1	157	41	80	96	70	1	1.86
44	1	1	1	15	12000	5	1	2	1	2	1	2	2	2	2	2	1	2	2	2	1	2	2	12	32	5	2	2	2	2	2	1	0	1	2	2	2	3	1	2	1	0	155	53	72	124	86	2	1.35
45	1	1	1	16	8000	4	2	2	2	2	1	2	2	2	2	1	1	2	2	2	2	2	2	13	28	7	1	2	3	2	2	1	0	1	0	2	1	1	3	0	0	0	142	42	82	128	78	2	1.49
46	1	1	1	15	12000	4	2	2	1	1	2	1	2	1	2	1	2	2	1	2	2	2	2	13	35	5	2	2	3	2	2	1	1	2	2	1	0	3	1	2	0	0	148	40	72	110	80	2	1.9
47	1	1	1	15	8000	5	2	1	1	2	1	2	2	2	2	1	1	2	1	2	1	1	1	12	48	3	2	1	2	2	2	2	2	3	1	2	4	3	1	0	1	0	161	43	100	120	60	1	3
48	1	1	1	15	3000	3	1	2	1	2	1	2	1	2	2	2	1	2	2	1	1	1	2	11	30	5	2	2	2	3	2	3	1	1	0	0	2	3	1	1	2	2	148	35	72	148	98	2	1.76
49	1	1	1	15	9000	5	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2	2	12	27	3	2	2	3	2	2	2	0	0	1	2	2	1	1	1	1	0	138	37	72	110	70	2	2.34
50	1	1	1	17	19000	6	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	12	30	3	2	2	2	2	2	1	0	1	0	0	1	2	0	1	2	3	151	53	88	110	80	2	3.69
51	1	1	1	17	16000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	4	2	2	2	2	2	1	0	0	0	1	2	1	1	2	1	2	150	39	106	120	70	1	1.38
52	1	1	1	15	50000	4	2	2	2	2	2	2	1	2	2	2	2	1	2	2	2	2	1	11	28	5	2	2	3	2	2	1	1	1	0	0	2	3	1	1	2	0	145	39	72	110	70	1	2.78
53	1	1	1	18	2000	4	2	2	1	2	2	2	2	2	1	2	2	2	2	1	2	1	2	10	45	4	2	2	3	2	2	2	1	0	1	0	0	0	2	0	0	1	162	51	82	110	70	1	1.75

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
54	1	1	1	18	6000	6	2	2	1	2	2	2	1	2	1	1	1	1	2	2	1	2	2	12	35	6	1	2	3	2	2	2	0	1	0	0	2	1	1	3	0	0	165	62	72	110	70	2	2.62
55	1	1	1	16	8000	5	2	2	1	2	1	2	2	1	2	2	2	1	2	1	2	1	1	12	32	4	2	2	3	2	2	2	0	0	0	1	0	0	2	1	1	1	152	35	82	110	70	2	1.73
56	1	1	1	16	5000	3	2	2	1	1	2	2	2	2	1	2	1	1	1	1	1	1	2	12	30	4	2	2	3	2	2	1	0	2	2	0	1	4	1	1	2	3	149	36	92	110	70	2	3.86
57	1	1	1	16	4500	6	1	2	1	2	2	2	2	2	1	1	1	1	1	1	1	1	2	13	30	3	2	2	3	2	2	1	2	1	3	2	1	3	4	1	3	4	159	35	98	110	70	2	3.73
58	1	1	1	16	5000	5	2	1	2	1	1	2	1	2	2	1	1	1	1	1	1	1	1	13	60	4	2	1	2	2	2	1	0	4	1	2	4	3	2	3	4	0	154	72	82	130	76	1	6.4
59	1	1	1	17	3000	5	1	2	2	2	2	2	2	2	1	2	2	2	1	1	1	1	2	13	30	3	1	2	2	2	2	1	0	0	0	2	0	0	0	0	2	0	147	34	94	160	94	2	1.25
60	1	1	1	18	10000	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	13	20	5	2	2	2	2	2	1	0	0	1	0	0	0	0	2	1	2	160	52	98	110	58	2	2.89
61	1	1	1	16	10000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	2	2	16	30	4	2	2	3	3	2	1	0	2	1	1	2	1	3	1	2	2	156	38	74	109	69	2	2.46
62	1	1	1	16	2000	5	2	2	2	2	1	2	2	2	1	2	1	1	1	1	1	1	2	14	30	3	2	2	3	2	2	1	2	0	4	2	1	0	3	4	1	2	150	43	100	110	60	1	9.41
63	1	1	1	17	7000	5	1	1	1	1	1	2	2	2	2	1	2	2	2	1	2	2	1	12	30	4	2	2	2	2	2	1	4	2	4	3	1	4	1	3	4	4	155	60	96	130	67	1	5.5
64	1	1	1	16	11000	7	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	3	2	2	3	2	2	1	0	1	2	4	2	4	1	2	3	4	144	40	76	120	70	2	1.26
65	1	1	1	16	6000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	30	5	2	2	2	2	2	1	0	2	1	3	0	0	1	1	2	2	149	45	72	164	90	2	2.4
66	1	1	1	16	6000	5	2	2	1	2	2	2	2	2	1	2	2	2	1	1	1	2	2	14	30	3	1	2	3	2	2	1	0	0	2	0	0	2	1	0	0	0	167	40	77	97	64	2	1.5
67	1	1	1	16	7000	6	1	2	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	14	30	3	2	2	2	2	2	1	0	0	1	0	0	1	0	0	0	1	144	26	74	110	60	2	3.88
68	1	1	1	17	7000	6	1	2	2	2	2	2	2	2	1	2	2	2	2	1	2	1	1	13	30	4	2	2	3	3	2	2	0	0	1	0	0	1	0	0	0	1	152	48	78	98	60	2	1.18
69	1	1	1	16	7500	6	1	2	2	1	1	1	2	2	2	1	1	2	2	1	2	1	1	11	555	2	2	2	3	2	2	1	4	2	3	3	2	4	4	1	2	4	149	50	70	110	58	1	150
70	1	1	1	16	9000	5	2	2	2	2	1	2	2	2	2	2	2	2	2	1	2	2	2	14	30	4	2	2	3	3	2	3	1	0	1	0	1	0	1	1	0	0	138	39	86	116	60	2	2.81
71	1	1	1	17	5500	5	1	2	1	2	1	1	2	1	2	2	2	2	2	1	1	1	2	11	30	5	2	1	1	2	2	1	0	0	0	3	0	0	0	2	0	0	164	49	79	108	62	2	2.77
72	1	1	1	16	5000	6	2	2	1	2	2	2	2	2	1	2	2	2	2	1	1	1	1	15	30	6	1	2	2	2	2	1	0	0	0	2	1	0	0	0	0	0	158	34	94	92	70	2	1.58
73	1	1	1	16	9000	5	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	28	6	1	2	3	2	2	3	0	2	2	2	3	1	1	3	4	4	171	45	91	100	80	2	1.71
74	1	1	1	16	7500	4	2	2	1	2	2	2	2	2	2	2	2	1	2	1	1	1	1	13	20	1	2	2	3	2	2	1	0	0	1	0	1	1	0	1	0	0	149	38	98	106	70	2	2.52
75	1	1	1	17	2000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	555	2	2	2	3	2	2	1	0	2	0	2	0	2	0	3	0	1	150	40	67	103	70	2	1.55
76	1	1	1	16	5000	4	1	1	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	14	45	5	2	2	2	2	2	1	0	0	1	2	2	1	0	3	0	0	153	58	72	112	74	2	2.49
77	1	1	1	16	10000	5	2	1	2	2	2	2	2	2	1	2	2	2	2	2	1	2	2	12	30	4	2	2	2	2	2	3	1	2	3	4	0	2	4	2	1	3	156	50	94	100	70	2	0.88
78	1	1	1	16	5500	5	1	2	2	2	2	2	2	2	2	1	1	2	2	1	2	1	2	13	555	3	1	2	2	2	2	2	0	2	0	2	2	1	1	3	2	3	142	48	94	100	60	2	1.91
79	1	1	1	16	4500	6	1	2	2	1	1	2	2	2	2	1	2	1	1	2	2	1	1	14	35	5	1	1	2	2	2	2	0	0	2	1	4	1	1	2	2	1	152	39	104	98	68	1	4.86
80	1	1	1	16	15000	6	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2	14	60	5	2	2	2	2	2	3	0	1	2	3	4	1	2	3	4	0	149	35	86	82	64	2	3.66
81	1	1	1	16	3000	6	2	1	2	2	2	2	2	2	2	2	1	1	2	2	1	2	1	13	555	5	2	2	2	2	2	3	0	1	2	3	4	2	4	3	2	3	154	45	94	100	70	1	6.62
82	1	1	1	16	3000	4	2	2	1	2	1	2	2	2	2	1	2	2	1	2	2	2	1	13	30	5	1	2	2	2	2	1	0	1	2	0	1	0	1	2	1	1	144	44	72	98	60	2	1.95
83	1	1	1	16	2000	5	2	2	2	2	2	2	1	2	2	1	2	2	2	2	1	2	1	15	28	6	1	2	2	2	2	1	0	1	1	2	0	0	1	2	1	1	164	40	93	110	60	2	1.86
84	1	1	1	16	4500	5	2	2	1	2	2	2	2	2	2	2	1	2	2	1	2	2	2	15	30	5	1	2	2	2	2	1	0	1	2	2	1	2	1	1	0	1	149	34	93	90	60	2	3.13
85	1	1	1	17	12000	4	1	1	2	2	2	2	2	2	1	2	1	2	2	2	1	2	2	14	30	5	2	1	2	2	2	2	0	0	1	0	1	1	1	1	0	4	150	30	86	140	90	1	5.06
86	1	1	1	15	10000	6	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	5	2	2	2	2	2	2	0	0	1	3	1	2	1	3	3	4	153	35	74	90	60	2	1.47
87	1	1	1	18	5500	5	1	1	2	1	2	2	2	2	1	2	1	2	2	2	2	1	2	15	30	5	2	2	2	2	2	2	0	0	1	0	0	1	1	1	1	4	163	50	90	140	90	2	2.01
88	1	1	1	17	8000	4	1	1	2	2	2	2	2	2	1	1	1	2	2	1	1	1	2	14	30	5	2	2	2	2	2	1	0	0	1	0	1	1	1	1	0	4	150	39	84	80	60	2	1.36
89	1	1	1	16	6000	4	1	1	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	13	30	7	1	2	3	3	2	3	0	0	0	4	0	3	4	3	0	0	159	40	90	102	63	2	3.12
90	1	1	1	16	6500	3	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	15	30	4	1	2	3	2	2	3	0	0	0	0	1	3	0	0	1	0	151	46	81	98	60	2	1.26
91	1	1	1	17	8500	3	1	2	2	2	2	2	2	2	2	1	1	2	1	1	2	2	2	13	30	3	1	2	3	3	2	2	0	2	3	0	0	2	0	0	2	0	151	36	92	106	74	1	5.32
92	1	1	1	17	4500	6	1	2	2	1	2	2	2	2	2	2	2	2	2	1	1	1	2	14	30	4	2	2	3	2	2	2	0	2	2	4	2	2	1	3	2	2	158	43	98	125	76	1	5.31
93	1	1	1	16	5500	4	1	2	1	2	1	2	2	2	1	2	1	2	1	1	1	1	1	14	60	4	1	1	2	2	2	2	0	0	4	2	4	4	4	0	4	4	156	35	95	120	90	2	1.39
94	1	1	1	15	32500	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	15	31	3	2	2	2	2	2	1	0	1	2	1	0	3	0	0	1	0	159	45	68	120	78	1	1.77
95	1	1	1	17	8000	4	1	1	2	2	2	1	1	2	1	2	1	2	2	1	2	2	2	14	30	5	1	2	1	3	2	1	0	0	0	0	0	1	4	1	3	0	145	43	86	128	78	2	3.25
96	1	1	1	16	4000	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	21	8	1	1	2	2	2	1	0	0	0	0	0	0	1	1	3	2	148	34	62	110	54	2	1.51
97	1	1	1	16	7000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	28	3	2	2	3	3	2	1	2	0	0	0	0	0	0	0	2	0	153	35	117	99	56	2	2.72
98	1	1	1	16	5000	6	1	1	1	1	2	2	2	2	1	1	1	2	1	2	1	1	1	14	120	5	2	2	3	3	2	2	0	1	0	2	1	3	1	1	2	1	160	45	68	110	70	2	1.11
99	1	1	1	16	7000	5	1	1	1	1	2	2	1	2	1	1	1	2	2	2	1	1	1	13	60	2	2	2	3	2	2	1	1	0	1	3	4	0	2	3	1	2	158	63	72	120	70	1	2.12
100	1	1	1	16	6000	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	13	28	3	2	2	3	3	2	1	0	1	2	0	1	3	0	2	0	2	155	44	73	87	54	1	2.26
101	1	1	1	16	6000	4	2	2	1	1	2	2	2	2	1	2	2	2	2	2	2	2	2	14	60	5	2	2	3	2	2	1	0	0	1	2	0	2	0	4	0	1	150	51	70	96	53	2	1.51
102	1	1	1	16	7000	5	1	2	1	1	2	2	2	2	2	1	1	2	2	2	1	1	2	14	30	2	2	2	2	2	2	2	0	0	2	1	3	2	3	3	1	2	150	37	64	90	60	2	4.41
103	1	1	1	16	7000	5	1	2	2	1	1	1	1	2	1	1	1	1	2	2	1	1	1	14	30	6	1	2	3	2	2	1	0	0	1	0	0	1	0	0	0	1	152	48	86	117	62	2	1.75
104	1	1	1	17	9500	6	1	2	2	1	1	2	1	2	2	1	2	2	2	1	1	2	1	11	28	5	2	2	1	2	2	1	0	2	2	4	0	0	3	0	0	3	142	40	58	100	70	1	5.86
105	1	1	1	16	7500	5	2	2	1	1	2	2	2	2	2	2	2	2	2	2	1	2	2	15	30	7	1	2	3	2	2	1	0	2	0	2	1	0	2	1	3	0	147	36	98	90	60	2	1.74
106	1	1	1	16	7000	4	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	12	30	5	2	2	3	2	2	1	1	0	1	2	0	1	0	0	1	0	154	55	86	104	84	2	2.08
107	1	1	1	17	5500	5	2	2	1	2	2	2	2	2	2	2	1	2	2	1	2	2	1	14	30	7	1	2	2	2	2	1	0	0	2	1	0	0	3	0	1	0	161	46	85	108	83	1	1.67

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
108	1	1	1	16	25000	5	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	60	5	2	2	3	3	2	1	1	2	2	2	3	3	2	1	3	3	155	39	80	134	70	2	2.14
109	1	1	1	15	6000	4	1	1	2	1	2	2	2	2	2	1	1	1	2	1	1	1	2	14	30	3	2	2	3	2	2	3	0	3	1	2	1	3	4	1	0	3	158	44	114	104	64	2	1.53
110	1	1	1	16	5000	5	1	1	2	1	2	2	1	2	2	1	1	2	2	1	2	1	2	12	30	5	1	2	2	2	2	2	0	2	2	2	3	1	1	3	4	4	159	57	110	104	80	1	0.59
111	1	1	1	16	3000	4	1	1	2	1	2	2	1	2	2	1	1	2	2	1	2	1	2	13	30	5	1	2	2	2	2	2	0	1	3	2	0	1	4	2	4	1	161	45	92	132	86	2	1.43
112	1	1	1	16	4000	7	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	1	2	13	30	3	2	1	2	2	2	2	0	0	0	0	0	2	0	1	0	0	149	42	94	120	70	1	1.83
113	1	1	1	17	5000	5	2	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	14	30	5	2	2	2	2	2	2	0	1	2	1	3	1	2	0	1	4	153	40	90	124	88	2	2.35
114	1	1	1	17	4000	8	2	2	1	1	2	2	2	2	2	2	1	2	1	2	1	2	2	14	30	4	2	2	2	3	2	2	1	2	2	3	0	2	3	2	3	4	143	43	83	104	56	1	5.65
115	1	1	1	16	8000	5	1	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	16	30	5	2	2	2	1	2	2	1	2	3	4	0	2	4	2	1	3	154	51	84	116	72	2	2
116	1	1	1	17	2000	5	1	2	1	2	2	2	2	2	2	2	1	2	1	1	1	1	2	14	30	3	1	2	2	2	2	1	1	2	2	3	0	2	3	2	3	4	148	35	90	110	84	2	1
117	1	1	1	16	4500	4	1	2	1	2	2	1	1	2	1	2	2	1	2	2	1	2	2	16	30	3	1	2	3	3	2	1	1	2	3	4	3	2	1	4	2	3	142	42	90	106	72	2	1.32
118	1	1	1	16	6500	4	1	2	2	2	2	2	2	2	2	2	1	2	1	1	2	1	2	13	30	7	1	2	2	2	2	1	1	2	3	4	2	3	2	1	4	2	150	40	88	98	60	2	2.64
119	1	1	1	16	13000	5	1	2	2	2	2	2	1	2	1	1	2	1	2	1	2	1	2	15	30	3	2	2	2	2	2	2	0	0	1	0	1	2	1	2	3	4	132	37	70	120	84	2	3.78
120	1	1	1	16	8000	4	2	2	1	2	2	2	1	2	2	2	1	1	2	2	1	2	2	16	30	4	1	2	2	2	2	1	0	0	0	1	1	0	3	1	2	1	167	50	89	110	63	2	4.03
121	1	1	1	17	10000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	14	30	3	2	2	2	2	2	1	1	4	2	3	0	2	4	0	2	1	156	40	80	110	70	2	1.7
122	1	1	1	16	3000	5	1	2	1	2	2	2	2	2	2	2	2	1	1	2	2	2	2	15	30	5	2	2	3	2	2	1	0	0	0	0	0	1	0	0	0	0	149	39	92	116	70	2	0.38
123	1	1	1	16	6500	4	1	2	1	2	2	2	2	1	2	2	2	2	1	2	2	2	2	13	30	4	2	2	3	2	2	1	0	0	1	0	0	1	0	2	0	0	158	40	78	111	80	2	3.11
124	1	1	1	15	11000	5	2	2	2	2	2	2	2	2	2	2	1	1	2	1	1	2	1	13	555	2	2	2	2	2	2	1	0	0	1	2	1	2	2	0	1	3	150	35	98	100	80	2	1.63
125	1	1	1	16	6500	5	1	2	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	30	3	2	2	2	2	2	1	0	0	0	0	0	1	0	0	0	0	148	40	99	103	57	2	3.32
126	1	1	1	16	5000	5	1	1	1	1	1	2	2	2	2	2	1	2	2	1	2	1	1	14	60	3	2	1	2	2	2	1	0	0	1	0	0	1	0	0	0	0	150	60	93	127	97	2	3.42
127	1	1	1	16	11000	5	2	2	2	2	2	2	2	1	2	2	1	1	2	1	2	2	1	14	30	4	1	1	2	2	2	1	0	0	0	1	2	0	0	2	1	2	152	45	110	120	70	2	1.04
128	1	1	1	16	5500	6	1	1	1	1	2	2	2	2	1	2	2	2	2	2	2	2	1	14	30	5	2	2	2	2	2	3	0	0	0	2	3	1	2	1	1	2	163	56	98	110	74	2	1.85
129	1	1	1	17	4500	6	2	1	1	1	2	1	1	2	2	2	1	2	2	2	2	1	1	15	60	6	1	2	2	2	2	2	1	3	2	1	0	3	4	0	4	1	142	42	92	108	69	2	1.37
130	1	1	1	16	5800	4	2	2	2	2	1	2	1	2	2	2	2	2	2	2	1	2	2	15	29	5	2	1	2	2	2	2	2	1	3	2	1	3	0	3	2	1	152	40	102	116	64	2	0.7
131	1	1	1	16	4000	5	2	2	1	2	2	2	1	2	1	2	1	2	2	2	2	1	1	15	38	4	2	2	2	1	2	1	1	2	3	1	1	0	2	3	0	1	149	37	58	98	66	1	25.27
132	1	1	1	16	7000	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	14	25	4	2	2	2	2	2	1	2	2	0	1	0	1	4	1	0	1	150	42	78	100	70	1	4.93
133	1	1	1	16	8000	6	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	15	16	8	1	2	2	2	2	2	0	1	0	2	1	3	1	1	2	1	160	41	92	100	60	2	0.01
134	1	1	1	16	6000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	555	2	2	2	2	2	2	2	0	1	0	2	1	3	1	1	2	1	144	38	84	100	60	1	6.09
135	1	1	1	17	6000	6	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	30	5	2	2	2	2	2	1	0	0	2	0	1	1	0	1	2	0	148	40	72	110	70	2	1.33
136	1	1	1	16	7000	5	1	2	2	2	2	2	2	2	1	2	2	2	1	2	2	1	1	13	28	3	1	2	3	3	2	1	0	1	2	0	2	0	2	0	2	0	150	40	66	112	67	2	3.54
137	1	1	1	16	6000	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	1	14	28	3	2	2	3	3	2	1	0	1	2	3	4	1	2	3	2	2	148	33	92	95	53	2	0.77
138	1	1	1	16	5500	4	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	4	2	2	2	2	2	1	0	0	0	1	0	0	0	2	0	0	147	35	112	128	76	2	2.2
139	1	1	1	16	9400	4	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	14	30	3	2	2	2	2	2	1	0	0	0	0	1	0	1	0	2	0	175	45	86	106	84	2	1.98
140	1	1	1	16	5000	4	1	2	1	2	1	1	2	1	2	1	1	2	2	2	1	1	2	12	45	3	2	2	3	2	2	1	0	0	0	0	1	4	0	0	2	0	144	35	98	110	60	2	1.11
141	1	1	1	17	5000	4	1	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2	13	25	6	1	2	3	2	2	3	4	3	4	1	0	1	3	0	2	4	153	43	71	97	60	2	3.43
142	1	1	1	17	3000	6	1	1	1	1	2	2	2	2	1	2	2	2	2	2	2	2	1	13	30	4	2	2	3	2	2	1	0	0	3	0	2	0	0	1	0	0	142	39	84	120	70	1	2.47
143	1	1	1	18	7000	4	2	2	1	1	1	2	1	1	1	2	2	2	2	2	2	2	1	14	30	1	2	2	2	2	2	1	0	0	0	0	1	0	0	1	0	0	145	43	98	108	62	2	2.02
144	1	1	1	16	11500	6	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	1	13	30	5	2	2	2	2	2	1	0	3	1	3	2	4	1	3	1	1	151	40	60	98	58	2	1.51
145	1	1	1	15	8500	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	14	25	3	1	2	2	2	2	2	0	1	0	2	1	2	0	0	1	0	150	36	94	100	60	2	3.01
146	1	1	1	16	4000	4	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	1	14	24	5	1	2	2	2	2	2	0	1	0	2	1	2	0	0	1	0	155	38	98	86	57	2	1.58
147	1	1	1	16	11000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	14	24	3	2	2	3	2	2	2	0	0	2	4	0	3	4	3	0	0	154	46	87	103	57	2	4.22
148	1	1	1	16	7000	7	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	16	60	7	1	2	2	2	2	3	0	0	2	4	0	3	4	3	0	0	159	45	85	86	54	2	2.6
149	1	1	1	16	10000	5	2	2	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	12	30	4	1	2	2	3	2	3	0	0	2	4	0	3	4	3	0	0	146	40	75	100	61	2	4.27
150	1	1	1	16	10000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	14	30	4	2	2	3	2	2	3	0	0	2	4	0	3	4	3	0	0	155	50	81	118	62	2	2.41
151	1	1	1	16	8000	4	1	1	2	2	2	2	2	2	1	2	2	2	2	1	2	2	2	13	26	4	2	2	3	2	2	3	0	0	2	4	0	3	4	3	0	0	149	47	79	93	63	2	2.23
152	1	1	1	16	15000	6	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	2	15	30	4	1	2	2	2	2	2	1	2	3	1	2	1	3	2	1	3	153	41	86	128	64	2	1.8
153	1	1	1	16	4000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	45	4	1	2	2	2	2	2	0	0	0	2	0	0	0	0	1	0	175	47	90	90	60	2	1.93
154	1	1	1	16	5000	5	1	2	1	2	1	1	2	2	2	1	1	2	2	1	1	1	2	13	30	6	1	2	2	2	2	3	0	0	4	2	2	1	4	1	2	4	161	38	98	120	72	2	1.37
155	1	1	1	17	5000	6	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	14	60	5	2	2	2	2	2	1	1	2	1	3	1	3	2	2	2	1	147	46	93	110	68	2	1.75
156	1	1	1	16	20000	5	1	2	2	1	1	1	1	1	2	2	1	1	1	2	1	1	1	15	60	7	1	2	3	2	2	2	1	1	2	3	1	4	3	1	4	4	149	40	89	140	90	2	2.35
157	1	1	1	16	4000	4	1	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	13	45	5	2	2	2	2	2	3	0	1	2	3	4	0	1	2	4	3	148	36	91	128	80	2	2.61
158	1	1	1	16	6000	5	1	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	1	14	60	5	2	2	2	2	2	1	0	0	0	0	1	0	0	0	1	0	151	50	92	114	72	2	3.17
159	1	1	1	16	5000	4	2	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	14	40	5	2	2	2	2	2	2	0	0	1	0	0	2	0	0	0	0	161	60	90	122	80	2	0.71
160	1	1	1	16	4500	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	28	2	2	2	2	2	2	1	0	1	0	0	0	2	0	0	0	0	166	38	86	136	78	2	2.23
161	1	1	1	16	8500	5	1	2	2	1	2	2	2	2	1	2	1	1	1	1	1	1	1	15	30	8	1	2	2	2	2	2	2	2	1	2	1	1	3	1	2	1	155	38	80	100	70	1	1.66

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
162	1	1	1	16	8000	5	2	2	2	2	2	2	2	2	1	2	1	2	2	1	2	1	2	15	30	4	1	2	3	2	2	1	1	2	1	1	3	1	3	2	1	2	157	40	68	100	70	2	1.82
163	1	1	1	16	8000	5	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	1	15	60	5	1	2	2	2	2	2	2	3	2	1	2	0	1	3	1	2	151	38	101	105	63	2	3.98
164	1	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	1	1	2	1	2	2	2	15	30	3	1	2	3	2	2	2	3	1	2	3	1	2	1	2	3	2	152	58	79	100	60	2	1.18
165	1	1	1	16	6500	3	2	2	1	2	1	2	2	2	1	2	1	2	2	1	1	1	2	14	60	3	2	1	3	2	2	3	0	0	2	1	0	2	0	2	1	3	152	48	98	108	66	2	2.13
166	1	1	1	18	3000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	12	30	4	2	2	3	2	2	1	2	1	2	2	0	0	2	1	0	0	159	51	100	133	90	1	4.83
167	1	1	1	18	13000	4	1	1	1	1	2	2	2	2	1	1	2	2	2	2	2	2	2	13	60	20	1	1	2	1	1	1	0	0	1	1	0	1	2	3	1	0	153	58	86	127	73	2	1.46
168	1	1	1	19	26000	5	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	13	28	3	2	2	3	3	2	1	2	3	2	4	2	2	2	1	4	2	150	40	96	120	80	2	3.38
169	1	1	1	18	50000	6	1	2	1	2	2	2	2	2	2	1	2	1	1	2	2	2	2	14	28	4	1	2	2	2	2	3	2	4	0	2	2	0	4	4	4	4	160	37	86	93	74	2	3.06
170	1	1	1	18	4000	2	1	2	2	2	2	2	2	2	2	2	1	2	2	1	2	1	1	14	28	5	2	2	2	2	2	2	2	1	2	2	2	2	1	1	2	3	160	55	94	168	85	2	3.52
171	1	1	1	17	11000	6	1	2	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	15	60	3	2	2	3	3	2	3	4	0	0	0	0	0	0	0	0	2	145	45	92	102	70	1	2.96
172	1	1	1	19	9000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	14	24	5	2	2	3	2	2	1	0	0	0	3	3	1	0	2	0	0	152	37	103	105	70	1	5.56
173	1	1	1	19	8000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	15	23	5	2	2	3	2	2	1	0	0	0	3	3	1	0	2	0	0	147	41	97	104	68	2	3.17
174	1	1	1	19	5000	4	1	2	2	2	1	2	2	2	1	1	2	1	2	2	2	2	2	13	30	3	1	2	2	2	2	3	4	1	0	1	1	0	1	0	0	0	144	34	100	90	72	1	4.42
175	1	1	1	19	10000	4	1	2	2	2	1	2	1	2	1	1	2	1	2	2	2	2	2	14	30	3	1	2	2	2	2	3	4	1	0	1	1	0	1	0	0	0	160	57	104	120	98	2	4.5
176	1	1	1	18	45000	6	1	2	1	1	1	2	2	2	1	2	1	2	2	1	2	1	1	13	28	3	1	2	2	2	2	1	2	4	4	3	3	1	1	1	1	1	156	43	84	99	60	1	12.9
177	1	1	1	19	3500	6	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	1	2	14	45	3	2	1	3	3	2	1	3	2	3	4	1	3	2	3	2	3	150	50	84	108	60	1	5.97
178	1	1	1	19	35000	5	1	2	1	1	2	2	2	2	1	2	2	2	2	1	1	1	1	15	26	5	2	2	2	2	2	1	0	0	1	1	0	1	0	3	1	0	154	41	86	124	80	2	1.97
179	1	1	1	18	10000	5	1	2	1	2	2	2	1	1	2	2	1	2	1	2	1	1	1	12	30	7	1	2	3	2	2	1	0	1	2	1	0	0	1	2	0	0	145	35	116	126	89	2	1.74
180	1	1	1	19	6000	5	1	2	1	2	1	2	2	1	1	1	1	2	1	2	1	1	1	12	30	10	1	2	2	2	2	1	0	0	1	1	0	2	0	2	3	1	150	40	81	100	58	2	2.56
181	1	1	1	19	47000	5	2	2	2	2	2	2	2	2	1	2	2	1	1	2	2	2	2	13	26	3	2	2	2	2	2	2	0	0	0	1	0	0	2	0	0	0	147	39	100	107	59	2	3.02
182	1	1	1	19	16000	5	2	2	2	2	2	2	2	2	1	2	2	1	1	2	2	2	2	12	26	3	2	2	2	2	2	2	0	1	0	0	2	0	0	1	0	0	140	39	106	113	60	2	3.21
183	1	1	1	19	4500	4	2	2	2	2	2	2	2	2	1	1	2	2	2	2	1	2	2	11	26	4	2	2	3	2	2	1	2	0	0	1	1	0	1	0	2	1	153	40	88	134	96	1	2.2
184	1	1	1	18	15000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	34	5	2	2	2	2	2	1	1	0	0	1	1	0	0	0	0	0	150	44	97	86	56	1	1.86
185	1	1	1	18	8000	5	1	2	1	1	2	2	2	2	2	1	2	2	1	1	2	1	2	13	90	6	1	2	2	2	2	1	3	3	4	4	2	4	4	4	4	4	150	50	84	107	71	2	2.92
186	1	1	1	18	16000	5	2	2	2	1	2	2	1	2	2	2	2	2	2	1	2	1	1	13	30	3	2	2	2	2	2	2	2	2	2	3	3	4	1	2	3	1	147	38	82	91	54	2	1.53
187	1	1	1	18	19000	5	2	1	1	1	1	1	1	2	2	1	1	1	2	1	1	1	2	16	32	5	2	2	2	2	2	2	2	3	3	2	3	4	4	3	4	4	149	63	84	120	70	2	1.46
188	1	1	1	19	18000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	13	30	4	2	2	3	2	2	2	3	2	4	2	1	3	2	4	1	0	149	41	66	120	80	1	14.82
189	1	1	1	19	17000	4	1	2	2	1	1	2	2	1	2	2	1	2	2	2	2	2	2	12	28	7	1	1	3	2	2	2	4	0	3	4	0	0	2	4	2	4	162	44	90	117	73	1	2.41
190	1	1	1	19	5000	6	1	2	2	1	1	2	2	2	1	1	1	1	1	2	1	1	2	13	30	7	1	2	2	2	2	1	2	3	2	2	1	4	2	4	2	4	155	40	80	96	54	1	5.76
191	1	1	1	18	12000	5	1	2	1	1	2	2	2	2	1	2	2	2	2	1	2	1	2	13	25	5	2	2	3	2	2	1	0	0	1	0	2	3	1	2	0	0	138	38	86	110	70	1	1.88
192	1	1	1	19	10000	5	1	2	2	1	2	2	2	2	2	2	1	2	2	1	2	2	2	12	26	4	2	2	2	3	2	2	1	0	0	2	0	0	1	3	1	1	164	53	67	128	88	2	1.3
193	1	1	1	19	7500	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	13	60	4	2	2	2	2	2	2	1	2	1	2	1	2	1	1	1	1	152	45	92	111	71	2	0.91
194	1	1	1	19	6500	5	1	2	2	2	1	2	2	2	2	2	1	2	2	2	2	1	2	14	30	4	1	2	2	2	2	3	4	1	0	1	1	0	1	0	0	0	162	70	89	113	68	2	2.28
195	1	1	1	18	15000	5	1	1	2	2	1	2	1	2	1	1	1	2	2	2	1	2	2	14	30	6	1	2	3	2	2	2	3	2	2	4	2	4	2	2	3	4	162	55	76	116	60	2	2.47
196	1	1	1	18	4500	5	2	2	2	2	2	2	2	1	1	2	1	2	2	1	2	2	1	11	28	7	1	2	2	2	2	1	2	2	1	4	1	0	1	1	1	0	168	48	88	108	65	2	3.32
197	1	1	1	19	5000	5	1	1	2	1	1	1	1	1	1	1	2	1	1	2	1	1	1	12	60	3	2	2	2	2	2	1	0	1	0	1	2	0	0	0	2	0	153	48	75	113	67	2	0.7
198	1	1	1	18	7500	5	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	90	5	2	2	2	2	2	1	0	0	0	0	1	0	0	1	1	2	158	46	104	110	90	1	4.48
199	1	1	1	19	3000	5	1	2	1	2	1	2	2	2	1	1	1	1	1	1	1	1	2	14	28	5	1	2	2	2	2	2	0	0	1	3	0	1	4	1	1	0	156	42	103	117	77	2	1.49
200	1	1	1	19	5000	6	1	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	2	14	30	3	2	2	2	2	2	1	3	3	4	1	3	2	3	3	2	3	160	40	86	100	60	2	1.51
201	1	1	1	19	7500	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	16	28	5	2	2	3	2	2	1	1	1	0	3	1	0	0	0	0	0	152	40	86	100	60	1	12.72
202	1	1	1	19	5000	6	1	1	2	2	2	2	2	2	1	2	2	2	1	2	2	2	1	13	25	5	1	2	3	2	2	1	0	0	1	1	2	2	0	2	1	2	160	50	81	122	81	2	1.74
203	1	1	1	18	9000	4	1	2	1	2	1	2	2	2	1	1	1	2	1	2	1	2	2	14	31	6	1	2	3	2	2	1	0	0	1	1	2	2	0	2	0	3	138	39	74	90	50	2	3.3
204	1	1	1	18	20000	5	1	2	2	2	1	2	2	2	2	2	2	1	2	1	2	2	2	12	25	5	2	2	3	2	2	1	0	1	1	1	1	2	1	1	3	0	147	43	86	100	63	2	3.77
205	1	1	1	19	45000	4	2	2	1	2	2	2	2	2	1	2	1	2	2	2	1	1	2	13	60	5	2	1	2	2	2	2	2	1	1	3	1	0	1	1	3	1	153	41	84	130	90	2	2.62
206	1	1	1	19	12000	6	1	1	1	1	2	2	2	2	1	1	2	2	2	2	1	1	2	13	27	5	2	2	2	2	2	1	3	3	3	3	0	3	1	1	3	3	161	70	90	124	90	1	2.41
207	1	1	1	18	2000	5	1	2	1	1	2	1	2	2	1	1	2	1	1	1	1	2	2	14	30	3	2	2	3	3	2	2	3	2	3	0	2	0	0	2	1	2	155	53	86	117	80	2	10.98
208	1	1	1	19	10000	4	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	14	30	7	1	1	2	2	2	1	1	1	2	2	1	1	2	2	3	2	149	47	78	100	60	2	1.86
209	1	1	1	18	50000	5	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	1	12	28	5	1	2	2	2	2	1	1	3	4	3	2	4	1	2	4	4	159	55	91	119	71	2	3.57
210	1	1	1	18	9000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	11	28	3	2	2	2	2	2	1	1	0	0	1	2	0	0	0	1	0	157	47	93	110	74	1	6.23
211	1	1	1	19	10000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	12	30	8	1	2	2	2	2	3	0	0	0	0	1	0	1	0	0	0	151	35	75	86	55	2	2.92
212	1	1	1	19	4000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	13	24	5	2	2	3	2	2	1	0	0	0	3	3	1	0	2	0	0	135	38	86	90	60	1	5.67
213	1	1	1	19	6500	5	1	2	2	2	1	2	2	2	1	2	1	2	2	1	2	2	2	13	30	3	2	1	2	2	2	1	4	1	0	1	1	0	1	0	0	0	164	40	94	120	70	2	2.47
214	1	1	1	19	5000	6	1	2	1	2	1	2	2	2	1	2	2	2	2	2	2	1	2	11	28	5	2	2	2	2	2	2	3	2	3	4	1	3	2	3	2	3	138	35	93	90	70	1	1.11
215	1	1	1	18	5000	5	1	2	2	1	2	2	2	2	2	1	1	2	2	2	1	1	1	12	28	5	2	2	3	3	2	1	4	4	3	4	2	3	1	3	2	2	163	48	85	107	64	2	2.58

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
216	1	1	1	18	4500	4	1	2	1	2	2	2	2	2	1	1	1	2	2	1	1	1	1	12	28	3	2	2	3	2	2	3	2	2	2	1	1	3	0	0	0	2	157	44	82	113	83	2	0.61
217	1	1	1	19	10000	6	1	2	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	12	30	4	1	2	3	3	2	1	0	0	0	0	0	1	1	1	3	1	137	40	86	92	58	1	7.13
218	1	1	1	18	15000	4	1	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	12	30	3	2	2	2	2	2	2	0	0	0	1	0	0	0	0	0	0	165	65	73	114	57	2	2.33
219	1	1	1	18	7000	5	1	2	2	2	2	2	2	2	1	2	1	2	2	1	1	1	1	11	28	5	1	2	2	2	2	1	1	0	0	0	0	1	0	0	0	1	155	45	77	93	55	2	4.26
220	1	1	1	18	12000	7	2	2	2	2	2	2	2	2	1	1	2	2	2	2	1	2	1	16	33	5	2	2	2	2	2	1	1	1	0	1	1	1	1	1	1	1	160	40	104	100	78	2	3.53
221	1	1	1	19	5000	5	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	2	2	12	28	3	2	2	2	2	2	1	1	2	1	3	1	4	3	2	4	3	154	50	86	110	74	2	1.52
222	1	1	1	16	5000	4	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	1	2	14	30	5	2	2	3	2	2	3	1	0	2	4	4	1	0	1	2	3	145	35	100	102	78	2	1.61
223	1	1	1	16	4000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	3	2	2	2	2	2	2	0	0	0	1	0	4	0	1	1	0	160	40	84	102	60	2	2.07
224	1	1	1	16	20000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	2	1	11	35	5	2	2	2	2	2	1	0	4	4	0	0	4	2	3	3	0	163	57	86	103	56	2	1.33
225	1	1	1	16	4500	3	2	1	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	14	30	5	2	2	3	2	2	1	2	0	3	4	3	2	3	3	3	4	154	75	108	111	80	2	2.06
226	1	1	1	15	6000	6	2	2	2	2	2	1	1	2	2	2	2	2	1	2	2	1	2	14	30	6	1	2	2	2	2	3	2	1	1	2	2	2	1	1	1	1	145	39	110	128	75	2	1.26
227	1	1	1	16	8500	5	2	1	2	2	2	2	2	1	1	2	1	2	2	2	1	1	2	12	35	5	2	2	3	3	2	1	1	0	1	1	0	1	0	0	1	1	146	47	86	106	68	2	2.36
228	1	1	1	16	15000	4	1	2	2	1	1	2	2	2	1	2	2	2	2	1	2	1	2	13	30	5	2	2	3	2	2	2	1	2	1	3	1	2	1	2	1	1	160	50	122	102	77	1	1.09
229	1	1	1	15	3500	5	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	1	2	12	20	5	2	2	2	2	2	1	2	3	1	4	3	4	0	1	1	2	156	61	91	103	62	2	1
230	1	1	1	15	3000	5	2	2	2	2	2	2	2	2	1	2	1	1	2	1	2	1	2	14	29	5	2	2	3	2	2	3	2	3	0	1	3	0	0	0	1	1	160	46	109	118	70	2	2
231	1	1	1	15	8000	4	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	30	5	2	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	158	63	88	123	74	2	0.71
232	1	1	1	15	10000	5	2	2	2	2	2	2	2	2	1	2	2	1	2	1	2	1	2	666	666	666	666	2	3	2	2	2	2	2	2	2	1	2	2	2	2	2	156	39	83	125	69	1	1.9
233	1	1	1	15	7000	5	1	1	2	2	1	2	2	2	2	1	1	1	2	1	1	1	2	12	30	5	2	2	3	2	2	2	0	0	2	1	2	3	1	0	1	0	158	46	84	112	54	1	4.29
234	1	1	1	16	18000	5	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	14	30	5	2	2	3	2	2	3	3	0	0	2	2	1	2	1	2	1	153	43	85	115	65	2	2.09
235	1	1	1	15	10000	8	1	2	1	1	2	2	2	2	1	1	2	2	2	1	1	1	2	13	24	4	1	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	145	35	89	106	58	1	2.28
236	1	1	1	16	5000	4	1	1	2	1	1	1	1	1	2	2	1	2	1	1	1	1	1	14	30	3	1	2	3	3	2	1	1	1	0	2	1	1	1	0	1	2	152	34	64	98	64	1	3.54
237	1	1	1	16	3500	5	1	2	1	2	1	2	2	2	2	2	1	2	2	2	2	1	1	13	28	5	2	2	1	2	2	3	0	1	1	3	0	1	0	0	1	1	153	49	130	94	66	2	2.65
238	1	1	1	15	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	30	6	1	2	2	2	2	1	0	0	0	4	1	1	0	0	1	2	145	39	77	111	62	2	2.09
239	1	1	1	15	10000	7	2	2	1	2	2	2	1	2	2	2	2	2	1	2	1	1	2	13	25	5	2	2	3	2	2	2	2	1	2	1	2	3	2	1	2	1	147	40	81	107	54	2	2.97
240	1	1	1	15	7000	4	2	2	1	2	2	2	2	2	1	2	1	2	2	2	2	1	2	12	30	5	2	2	3	2	2	2	1	0	1	1	0	0	0	0	0	0	146	45	97	115	84	2	1.44
241	1	1	1	15	20000	4	2	2	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	14	30	5	2	2	2	2	2	2	1	2	1	1	1	2	1	1	1	2	155	44	106	103	64	1	3.28
242	1	1	1	15	12000	3	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	14	30	3	2	2	3	2	2	2	1	2	2	3	4	3	4	3	2	4	156	47	92	122	66	2	0.8
243	1	1	1	15	33000	5	1	2	2	1	2	2	2	2	2	2	1	2	2	2	1	1	1	13	25	5	2	2	3	3	2	2	3	3	3	3	2	0	1	2	2	3	152	44	68	104	67	2	1.83
244	1	1	1	15	20000	5	1	1	2	1	2	2	2	2	1	2	1	1	2	1	1	2	1	12	30	3	2	2	2	2	2	3	1	0	1	0	0	1	1	0	0	1	148	45	84	107	54	2	1.76
245	1	1	1	16	15000	5	2	2	2	2	2	2	1	2	1	2	2	2	2	2	1	2	2	13	50	3	2	2	3	2	2	1	1	0	0	1	0	0	0	2	2	2	160	61	87	125	91	2	2.85
246	1	1	1	15	10500	5	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	1	1	14	30	4	2	2	3	3	2	2	2	1	2	1	0	1	1	2	2	2	159	42	98	112	71	2	1.33
247	1	1	1	16	18000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	13	20	3	2	2	3	2	2	1	0	0	0	0	0	0	1	0	0	0	152	38	84	116	71	1	2.01
248	1	1	1	16	5000	4	1	2	1	1	1	2	2	2	2	2	2	2	2	2	2	1	2	13	27	5	2	2	1	1	1	1	0	1	0	1	2	2	1	0	0	0	157	73	94	119	71	1	12.51
249	1	1	1	15	8000	5	1	2	1	1	2	2	2	2	2	1	1	1	2	1	1	1	1	13	60	10	2	1	2	2	2	1	1	0	1	0	1	0	0	0	0	1	153	50	87	110	57	2	3.66
250	1	1	1	15	11000	4	2	2	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	13	30	4	2	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	160	53	72	102	56	2	2.99
251	1	1	1	15	15000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	30	6	1	2	2	2	2	1	0	0	0	4	1	1	0	0	1	2	163	58	75	137	82	2	3.31
252	1	1	1	17	20000	5	1	2	1	2	2	2	2	2	2	2	1	2	1	1	2	1	1	14	30	5	2	1	1	2	2	2	0	1	2	1	0	4	1	1	2	1	143	39	104	106	64	2	1.71
253	1	1	1	16	18000	7	2	2	2	1	2	2	2	2	2	1	1	2	2	2	2	1	2	12	30	5	2	2	2	2	2	1	1	2	3	1	2	3	1	0	0	0	155	40	115	120	80	2	1.48
254	1	1	1	16	9000	5	2	2	1	2	2	2	2	2	1	2	2	2	1	2	2	2	1	12	40	5	2	2	2	2	2	2	1	2	1	1	1	2	1	1	1	2	139	38	93	96	67	2	2.16
255	1	1	1	16	14000	6	2	2	2	2	2	2	2	2	1	1	2	2	2	2	1	1	2	14	40	3	2	2	3	3	2	1	1	0	1	1	0	0	0	0	1	1	158	45	97	94	69	2	3.86
256	1	1	1	15	5000	4	2	2	1	2	2	2	2	2	1	2	2	2	2	2	1	1	2	14	40	3	2	2	3	3	2	1	0	1	0	1	0	1	0	0	1	1	150	47	116	107	71	2	2.34
257	1	1	1	16	10000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	13	28	5	2	2	2	2	2	1	0	0	0	1	0	0	0	2	1	0	160	49	80	100	60	2	1.38
258	1	1	1	16	13000	4	1	2	1	1	2	2	2	2	2	1	2	2	2	1	1	1	2	13	40	7	1	2	3	2	2	2	2	0	2	3	4	3	4	4	4	0	150	40	75	97	60	2	1.61
259	1	1	1	16	8000	4	1	2	1	2	2	2	2	2	2	2	1	2	2	1	1	1	2	14	30	7	1	2	3	2	2	2	2	3	3	3	1	2	1	0	4	4	150	39	74	95	62	1	1.84
260	1	1	1	15	8500	6	2	2	2	2	2	2	2	2	1	2	1	2	1	1	2	2	2	13	30	5	2	2	3	2	2	1	0	0	0	2	0	1	0	1	2	2	144	37	94	118	71	2	1.59
261	1	1	1	15	7000	5	2	2	2	1	2	2	2	2	2	1	1	1	2	2	1	2	2	13	30	5	2	1	3	3	2	2	0	1	2	0	2	3	1	2	0	2	157	42	97	102	61	1	1.1
262	1	1	1	15	15000	5	1	1	1	1	2	1	2	2	2	2	2	2	2	2	2	1	2	13	25	8	1	1	3	2	2	1	0	2	0	2	0	0	2	0	1	2	153	43	84	87	53	2	1.43
263	1	1	1	15	6000	4	1	2	2	1	2	2	2	2	1	2	1	1	2	2	2	1	1	14	30	3	2	2	3	2	2	2	1	2	2	3	4	3	4	3	2	3	160	52	92	124	69	1	5.04
264	1	1	1	16	20000	5	2	2	1	1	2	2	2	2	2	1	2	2	2	1	1	1	2	13	40	7	1	2	3	2	2	2	2	0	2	3	4	3	4	4	4	0	139	39	105	98	58	2	1.88
265	1	1	1	16	6000	4	1	2	1	1	1	1	1	1	2	2	1	2	2	1	1	1	2	13	27	7	1	2	3	2	2	1	4	3	4	1	0	4	3	2	2	4	153	46	76	113	72	1	3.9
266	1	1	1	15	5000	5	2	1	2	2	2	2	2	1	2	1	1	2	2	2	1	2	2	12	30	5	2	2	3	3	2	2	2	2	4	2	0	4	4	3	3	4	158	50	97	136	70	2	2.72
267	1	1	1	15	8000	7	1	2	1	1	2	2	2	2	2	1	2	2	2	2	1	1	2	13	40	5	2	2	3	2	2	1	3	4	4	2	3	4	3	4	3	4	163	47	102	106	73	2	0.78
268	1	1	1	16	12000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	12	30	6	1	2	2	2	2	1	0	0	0	4	1	0	0	0	1	2	149	35	84	109	63	2	1.7
269	1	1	1	15	5500	5	1	2	1	2	1	2	2	2	1	1	1	2	2	1	1	1	2	14	30	5	1	2	2	2	2	1	0	2	0	2	0	3	3	4	1	4	159	40	80	90	61	1	2.65

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
270	1	1	1	15	5000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	3	2	2	2	2	2	2	2	0	2	1	0	0	0	1	3	1	152	40	113	121	73	2	1.97
271	1	1	1	16	3500	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	2	14	30	4	2	2	2	2	2	2	1	1	2	1	0	0	0	0	1	1	165	41	105	110	76	2	2.98
272	1	1	1	16	35000	3	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	1	15	15	5	2	2	2	2	2	3	0	0	0	0	0	0	0	0	0	0	153	47	98	116	59	2	1.89
273	1	1	1	16	15000	5	2	2	1	2	2	2	2	2	2	1	1	2	2	1	2	1	2	15	30	4	2	2	3	2	2	3	1	0	1	0	0	1	1	1	0	1	153	55	88	111	61	2	3.03
274	1	1	1	15	25000	5	2	2	1	1	2	2	2	1	1	1	2	2	2	2	1	2	2	666	666	666	666	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	144	33	82	113	67	1	8.84
275	1	1	1	16	8000	5	1	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	2	14	35	6	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	164	50	98	120	78	1	3.4
276	1	1	1	15	7500	4	1	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	12	15	3	2	2	3	2	2	1	0	2	0	2	0	2	0	0	1	0	155	56	86	128	80	2	3.06
277	1	1	1	17	6500	5	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	1	13	28	5	2	2	1	2	2	2	2	2	4	2	4	2	1	1	2	2	157	50	91	110	70	2	2.63
278	1	1	1	17	17000	5	1	2	2	2	2	2	2	2	1	2	2	1	2	2	2	1	1	13	30	4	1	2	2	2	2	1	2	2	4	3	1	4	2	2	4	3	152	40	78	90	60	2	1.69
279	1	1	1	16	6500	5	1	1	2	2	1	2	1	2	1	2	1	2	1	1	2	2	1	14	28	5	1	2	3	2	2	1	2	1	0	1	0	1	0	2	0	1	147	43	89	120	65	1	1.26
280	1	1	1	17	4000	3	1	2	2	1	1	2	2	2	2	1	1	2	2	2	2	2	2	15	28	5	1	2	3	2	2	1	2	3	2	1	1	2	0	1	2	1	148	37	80	93	55	2	2.03
281	1	1	1	17	4000	5	1	2	2	1	1	2	1	1	2	1	1	2	2	2	1	1	2	13	25	5	2	2	3	2	2	3	4	4	3	1	0	1	2	0	2	4	142	33	98	102	60	2	3.55
282	1	1	1	16	10000	4	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	1	2	14	30	5	2	2	2	2	2	1	2	2	3	2	4	2	2	3	3	1	147	40	106	114	59	2	2.51
283	1	1	1	16	2000	4	1	1	2	2	2	2	2	1	2	1	2	2	2	2	1	2	2	13	40	2	2	2	1	2	2	2	0	0	0	2	2	2	0	0	0	2	157	65	79	130	70	2	1.11
284	1	1	1	16	6500	4	1	1	2	1	1	2	2	2	2	1	1	2	2	2	1	1	1	12	33	5	2	2	3	2	2	1	4	2	4	3	1	4	1	3	2	4	149	46	116	110	60	2	4.52
285	1	1	1	16	3000	3	1	2	2	1	1	2	2	2	2	1	1	2	2	2	1	1	1	13	35	4	2	2	3	2	2	1	2	2	2	2	1	3	0	2	2	4	146	41	92	120	70	1	1.44
286	1	1	1	17	7800	4	2	2	2	2	2	2	1	2	2	1	1	2	1	2	1	2	2	12	28	4	2	2	2	2	2	1	2	2	2	0	2	2	4	0	0	2	150	37	80	84	55	2	0.81
287	1	1	1	16	6500	4	2	1	1	2	1	2	2	2	2	2	2	2	2	1	2	1	2	13	25	5	1	2	2	2	2	2	0	0	1	0	2	4	2	0	0	2	156	50	111	111	62	1	2.45
288	1	1	1	17	7500	4	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	14	39	5	2	2	2	2	2	1	0	0	0	0	2	2	0	0	0	2	155	50	103	129	87	2	2.11
289	1	1	1	17	3500	3	2	2	2	1	2	2	2	1	1	2	1	2	2	1	1	1	1	12	35	5	2	2	2	2	2	1	1	0	2	1	1	2	1	1	1	0	158	47	80	102	67	2	2.38
290	1	1	1	16	14000	4	1	2	2	1	1	2	2	2	2	2	1	2	2	1	1	2	1	13	40	7	1	2	3	2	2	2	2	0	2	4	0	4	3	3	3	4	152	40	113	100	64	2	2.25
291	1	1	1	17	15000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	31	5	2	2	3	2	2	1	1	2	1	0	1	2	0	1	0	1	150	49	71	116	71	2	0.84
292	1	1	1	17	16000	5	1	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	15	40	6	1	2	3	2	2	3	2	1	2	2	2	0	3	2	3	4	165	40	91	115	79	2	1.34
293	1	1	1	16	8000	4	2	1	1	1	1	2	2	2	2	2	1	2	2	2	1	1	2	14	28	5	2	2	3	2	2	1	0	2	4	2	4	4	1	2	4	2	157	45	79	118	68	1	26.23
294	1	1	1	16	4500	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	35	6	1	2	2	2	2	1	2	0	0	0	1	4	0	0	0	2	156	47	91	86	69	1	0.36
295	1	1	1	16	4000	3	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	45	3	2	1	3	2	2	1	0	0	1	0	0	2	0	0	0	0	154	45	89	112	76	2	1.02
296	1	1	1	17	15000	5	1	2	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	15	60	5	2	2	3	2	2	1	2	0	1	1	2	3	2	3	0	2	154	49	63	100	78	2	2.1
297	1	1	1	17	15000	3	2	1	1	2	2	2	2	2	2	1	2	2	2	1	2	1	2	13	27	3	1	2	2	2	2	3	3	2	2	1	1	3	1	2	3	4	155	46	109	104	69	2	1.49
298	1	1	1	17	4000	5	1	2	1	1	2	2	2	2	2	1	1	2	2	2	1	2	2	13	30	4	2	2	2	2	2	1	3	2	4	1	1	4	3	1	4	4	159	39	68	82	62	1	0.54
299	1	1	1	17	7850	4	1	1	1	1	2	2	2	2	2	1	1	2	2	1	2	2	1	12	30	7	1	2	2	2	2	1	4	2	4	4	0	0	1	3	4	4	153	63	98	120	78	2	3.5
300	1	1	1	17	4500	7	2	2	2	2	1	2	2	2	2	2	1	2	2	2	1	1	1	15	29	5	2	2	3	2	2	1	2	2	1	0	3	2	1	2	3	4	158	43	83	103	66	2	1.43
301	1	1	1	17	5000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	1	2	12	30	4	1	2	3	3	2	1	0	0	1	0	0	1	1	2	3	4	148	40	90	100	60	1	1.25
302	1	1	1	17	7500	5	2	2	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	15	24	6	1	2	3	2	2	1	2	1	1	0	0	4	2	4	4	4	153	45	108	113	69	1	3.62
303	1	1	1	17	10000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	28	7	1	2	2	2	2	1	0	1	2	4	2	1	2	4	1	1	152	50	126	130	70	2	2.27
304	1	1	1	17	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	0	0	0	0	0	1	1	1	1	1	154	48	133	118	70	2	1.31
305	1	1	1	16	16000	5	2	2	2	2	2	2	2	2	1	1	2	1	2	1	2	2	1	13	28	5	1	2	2	2	2	1	2	0	1	3	4	2	1	0	0	0	149	30	103	120	70	1	1.24
306	1	1	1	16	6000	6	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	2	14	120	5	2	1	2	2	2	1	2	0	1	3	4	2	1	0	0	0	149	37	95	100	63	2	1.76
307	1	1	1	16	10000	6	1	2	2	1	2	2	2	2	2	1	1	2	2	1	1	1	1	13	40	4	1	1	3	2	2	1	4	3	2	4	1	4	4	0	2	3	146	40	94	96	65	2	1.27
308	1	1	1	16	8000	5	2	2	1	1	2	2	2	2	1	1	2	2	1	1	1	1	1	15	30	2	2	2	3	2	2	1	3	2	3	1	4	2	3	2	4	4	150	37	126	96	55	2	1.7
309	1	1	1	16	13000	6	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	14	25	5	2	2	3	2	2	1	2	0	1	3	0	2	0	3	0	3	164	50	74	100	67	2	1.93
310	1	1	1	17	5000	6	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	12	30	5	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	158	50	110	144	64	2	2.02
311	1	1	1	17	10000	7	1	2	2	2	2	2	2	2	2	1	1	2	2	1	1	1	2	12	30	4	2	2	1	3	2	1	3	2	2	4	2	4	3	3	3	2	153	35	103	85	55	2	0.77
312	1	1	1	17	3000	6	1	2	2	2	2	2	2	2	1	2	2	2	2	1	2	2	1	16	28	5	2	2	3	2	2	1	3	1	2	2	1	2	0	0	0	1	146	40	79	106	70	1	4.16
313	1	1	1	17	4000	5	2	2	2	2	1	2	2	1	1	2	1	2	2	1	2	2	2	11	30	5	2	2	2	2	2	1	0	0	2	4	0	3	0	0	0	2	148	42	89	97	69	2	3.18
314	1	1	1	17	6000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	28	5	2	2	2	2	2	1	1	0	0	0	0	4	2	0	0	0	155	49	86	121	68	2	2.78
315	1	1	1	17	50000	4	2	2	2	1	1	2	2	2	2	2	1	2	2	2	2	2	2	11	27	4	1	2	3	2	2	2	4	0	0	4	2	0	1	4	2	0	156	52	93	125	77	2	1.82
316	1	1	1	16	5000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	1	2	12	35	6	1	2	2	2	2	1	1	0	2	3	4	3	2	0	0	0	155	47	77	110	60	1	1.66
317	1	1	1	17	10000	5	2	2	1	2	1	2	2	2	2	2	2	2	2	1	2	1	2	14	30	5	2	2	1	2	2	1	1	0	0	0	0	2	0	1	0	2	148	60	101	137	80	1	2.08
318	1	1	1	16	3000	5	1	2	1	2	1	2	2	2	2	2	1	1	2	2	2	2	1	12	25	4	2	2	2	2	2	1	1	0	2	1	0	3	0	1	0	0	155	41	105	114	70	2	1.77
319	1	1	1	17	6000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	30	6	1	2	2	2	2	1	0	0	0	0	0	2	0	0	0	0	152	48	95	130	70	1	6.68
320	1	1	1	16	7000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	22	5	2	2	3	2	2	2	1	0	0	2	1	1	1	2	0	0	153	40	98	128	60	1	6.04
321	1	1	1	17	15000	5	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	1	1	11	30	4	2	2	2	2	2	1	0	2	2	4	2	1	2	2	3	2	148	48	126	130	76	1	3.82
322	1	1	1	16	8000	5	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	1	13	30	5	2	2	2	2	2	1	0	0	0	0	1	3	0	2	0	1	165	50	91	116	64	2	2.66
323	1	1	1	16	6000	5	2	2	1	2	2	2	2	2	1	2	2	2	1	2	2	1	2	14	30	3	2	2	2	2	2	1	2	1	2	1	3	4	2	2	3	4	152	35	104	98	68	2	1.86

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
324	1	1	1	17	4500	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	35	4	2	2	2	2	2	1	0	0	0	1	1	0	0	0	1	0	162	41	100	100	90	2	1.48
325	1	1	1	16	10000	6	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	2	14	30	4	2	2	2	3	2	1	4	0	4	1	0	4	3	0	4	4	155	47	137	120	73	2	1.68
326	1	1	1	17	6000	6	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	13	28	5	2	2	3	3	2	1	2	2	2	3	2	2	3	4	2	2	161	50	97	131	93	2	2.24
327	1	1	1	17	5000	3	1	2	2	1	1	2	2	2	2	1	1	1	1	2	1	1	1	14	29	6	1	2	3	2	2	1	2	0	1	0	4	3	3	0	2	4	162	47	88	97	60	2	1.96
328	1	1	1	17	3000	4	2	1	2	1	2	2	1	2	2	2	1	2	2	1	1	2	1	14	120	5	1	1	3	2	2	1	2	3	1	2	1	3	0	2	1	1	163	55	68	96	58	2	0.77
329	1	1	1	16	7500	3	1	2	2	2	1	2	2	2	1	2	2	2	2	1	2	1	1	13	30	5	2	2	2	2	2	1	0	0	1	1	1	1	0	1	0	0	145	47	89	112	64	1	2.11
330	1	1	1	16	6000	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	1	13	30	7	1	2	2	2	2	1	0	1	1	3	1	1	0	2	0	0	149	49	87	110	60	1	3.07
331	1	1	1	17	3500	5	1	2	2	1	1	2	2	2	1	1	1	2	1	2	1	2	2	12	28	5	2	2	3	2	2	1	2	0	2	3	2	2	2	1	3	4	155	40	95	102	70	2	1.58
332	1	1	1	17	9500	4	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	5	2	2	2	2	2	1	2	1	0	3	3	2	2	4	2	4	160	51	110	92	67	2	0.87
333	1	1	1	17	7000	6	2	2	2	2	1	2	2	2	2	2	1	2	1	2	2	1	2	12	40	5	2	2	3	2	2	1	2	1	2	3	2	3	2	2	3	1	149	35	76	90	60	1	2.27
334	1	1	1	17	3000	5	1	2	1	2	1	2	2	2	2	2	1	2	2	1	1	1	1	14	30	8	1	2	2	2	2	1	2	0	2	0	1	4	2	0	0	2	161	45	91	118	81	2	1.53
335	1	1	1	16	5000	6	2	2	2	2	2	2	2	2	2	2	1	1	2	1	2	1	1	13	30	5	2	2	3	2	2	1	1	0	0	1	0	2	1	0	2	1	162	43	109	113	72	2	1.42
336	1	1	1	16	8000	3	2	2	2	2	2	2	2	1	2	1	1	1	2	2	2	2	2	16	30	4	2	2	3	2	2	1	4	1	4	3	2	4	3	3	4	3	150	40	82	106	67	2	1.73
337	1	1	1	16	13000	3	1	2	1	1	1	2	1	1	1	1	1	1	1	2	1	1	2	13	30	5	2	2	3	1	1	1	0	0	0	3	0	1	0	0	0	0	154	35	72	84	57	2	1.93
338	1	1	1	16	4000	4	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	12	555	6	1	2	3	3	2	1	2	2	2	2	1	2	2	2	2	2	160	45	79	105	70	2	2.76
339	1	1	1	17	6000	4	2	1	2	2	2	2	2	1	2	2	2	1	2	2	1	1	2	14	45	5	2	2	3	2	2	2	2	1	2	4	4	4	3	2	3	4	151	47	93	117	68	2	1.23
340	1	1	1	17	8000	4	1	2	1	1	1	2	2	2	1	1	1	2	2	2	1	1	2	12	30	5	2	2	3	2	2	1	4	1	4	3	2	4	3	1	2	4	164	45	87	90	63	2	1.81
341	1	1	1	17	4000	5	1	2	2	2	2	2	2	2	2	1	1	2	2	1	1	1	2	14	28	7	1	1	2	2	2	1	2	3	4	2	0	4	0	3	3	4	163	48	75	88	60	2	1.61
342	1	1	1	16	8000	4	1	2	1	2	2	2	2	1	1	2	2	2	2	2	2	2	2	15	25	5	2	2	3	2	2	1	1	1	4	1	1	2	1	1	2	2	156	41	87	105	72	2	1.14
343	1	1	1	17	4200	5	1	1	2	2	2	2	2	2	1	1	1	2	2	2	2	1	1	12	30	5	2	2	3	2	2	1	2	3	2	4	2	4	4	2	4	4	148	47	88	107	67	2	1.8
344	1	1	1	17	3000	4	1	2	2	2	1	2	1	2	2	2	1	2	2	2	1	2	2	14	30	7	1	2	2	1	1	3	1	4	1	2	2	0	1	2	4	3	151	43	89	103	62	2	3.92
345	1	1	1	16	10000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	12	29	5	2	2	2	2	2	1	2	1	2	3	1	2	3	3	2	2	157	55	74	122	84	2	1.97
346	1	1	1	16	10000	4	2	2	2	2	1	2	1	2	2	2	2	2	2	2	2	2	1	12	30	5	1	2	2	2	2	2	0	0	1	2	1	1	3	2	1	3	145	39	74	136	104	2	1.68
347	1	1	1	17	5000	5	2	2	2	2	2	2	1	2	1	2	1	2	2	1	2	2	2	12	25	5	2	2	3	2	2	3	4	4	4	4	3	3	3	2	1	2	153	44	76	114	66	1	1.1
348	1	1	1	17	5000	3	2	1	1	1	1	2	2	2	2	2	1	2	1	1	1	1	1	10	25	5	2	2	2	2	2	1	4	2	4	2	2	3	3	4	4	4	148	50	90	133	75	2	1.24
349	1	1	1	19	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	28	4	2	2	3	2	2	1	1	2	1	3	3	0	1	1	1	1	158	51	86	131	80	2	1.23
350	1	1	1	17	5000	3	2	2	2	1	1	2	2	1	1	1	1	2	1	1	1	1	2	10	30	7	1	2	2	2	2	1	4	4	4	2	3	3	3	3	4	4	151	34	99	90	63	2	3.44
351	1	1	1	17	2000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	30	4	2	2	3	2	2	2	2	4	2	4	3	3	0	3	1	1	160	43	78	107	80	2	2.08
352	1	1	1	16	8000	5	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	1	10	555	1	2	2	3	2	2	1	1	1	1	2	3	2	3	3	3	4	154	36	84	116	64	1	1.21
353	1	1	1	16	5500	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	30	5	2	2	2	3	2	1	0	2	3	2	1	0	3	0	0	1	152	40	97	104	78	2	2.08
354	1	1	1	17	4000	4	1	2	2	2	1	2	2	2	2	1	1	2	2	1	1	1	1	10	45	5	2	2	2	2	2	1	4	3	2	2	3	0	4	4	4	3	147	39	75	105	95	2	2
355	1	1	1	17	3000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	25	5	2	2	3	2	2	1	2	2	0	4	1	0	0	3	1	0	150	35	93	114	63	2	2.51
356	1	1	1	17	9000	4	2	2	2	2	1	2	2	2	2	2	2	2	2	1	2	1	2	13	45	7	1	2	2	2	2	1	1	1	2	1	1	1	1	0	0	1	150	45	106	126	84	2	0.9
357	1	1	1	16	11000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	28	5	2	2	3	2	2	1	0	2	0	2	0	0	0	0	0	2	155	35	81	96	74	1	0.88
358	1	1	1	17	7000	4	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	14	60	5	2	2	2	2	2	1	3	0	2	3	2	2	0	3	2	0	148	45	83	121	79	2	2.4
359	1	1	1	17	15000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	30	5	2	2	3	2	2	2	1	0	1	2	0	2	0	1	1	1	143	47	90	107	71	2	2.5
360	1	1	1	17	7000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	4	2	2	3	2	2	1	2	0	1	3	2	3	1	1	3	0	158	47	98	101	67	2	1.21
361	1	1	1	16	9000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	35	5	2	2	3	2	2	1	0	1	2	2	1	2	2	2	0	3	156	49	91	134	84	2	1.93
362	1	1	1	16	7500	4	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	11	26	5	2	1	2	2	2	1	2	2	3	2	2	2	3	3	4	4	142	50	79	110	68	2	0.76
363	1	1	1	17	9000	5	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2	12	29	5	2	2	2	2	2	1	1	4	2	2	2	4	3	3	1	4	154	39	81	88	61	2	1.1
364	1	1	1	17	8000	7	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	11	28	4	2	2	3	2	2	1	1	0	1	1	3	3	1	0	0	1	156	44	95	103	65	2	0.95
365	1	1	1	16	3000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	32	6	1	2	2	2	2	2	1	0	1	2	0	2	3	2	1	3	148	37	91	80	65	1	0.82
366	1	1	1	16	5000	5	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	2	15	28	3	2	2	3	2	2	1	2	0	0	1	0	3	2	2	0	1	156	42	90	160	104	1	2.26
367	1	1	1	16	10000	8	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	5	2	2	2	2	2	1	1	0	0	3	2	1	0	2	2	0	153	41	80	92	54	2	1.13
368	1	1	1	16	6000	8	1	1	2	1	2	2	2	2	2	1	1	2	2	1	1	1	1	11	30	5	1	2	2	2	2	1	3	2	4	3	1	2	3	2	0	4	153	55	101	129	75	2	1.02
369	1	1	1	17	11000	7	2	1	2	1	2	2	2	2	1	1	1	2	2	1	1	1	2	14	40	2	2	2	3	2	2	1	3	2	0	1	2	4	2	1	3	3	158	49	94	122	70	2	0.96
370	1	1	1	16	6000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	15	30	3	2	2	2	2	2	3	3	4	3	4	3	4	3	3	3	2	150	34	79	95	54	2	0.74
371	1	1	1	17	6000	3	1	2	2	1	2	2	2	2	1	1	2	2	2	1	1	1	2	11	30	3	2	2	2	2	2	1	0	2	4	3	1	0	0	0	1	0	158	44	90	100	68	1	3.52
372	1	1	1	16	7000	6	1	2	2	2	2	2	1	2	2	1	1	2	2	1	1	1	2	10	20	5	1	2	2	2	2	1	2	0	2	2	3	2	2	3	4	3	152	41	92	133	62	1	3.81
373	1	1	1	17	12000	4	1	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	12	28	3	2	2	2	2	2	1	1	2	1	3	3	0	1	1	1	0	154	52	66	101	65	2	1.67
374	1	1	1	16	10000	4	2	2	2	1	2	2	2	2	2	2	1	1	2	2	1	1	2	12	30	4	2	1	2	2	2	1	2	0	1	0	0	2	1	1	2	1	162	46	100	154	105	2	1.2
375	1	1	1	16	10500	5	1	2	1	2	2	2	2	2	2	1	1	2	2	1	1	1	1	13	20	6	1	2	2	2	2	1	2	0	2	2	3	2	2	3	4	3	150	38	82	101	70	2	1.39
376	1	1	1	16	10000	3	2	1	1	2	1	2	2	2	2	1	1	2	2	2	2	2	2	12	30	3	2	2	3	2	2	1	3	4	2	4	4	3	3	3	1	2	163	38	114	133	85	2	1.39
377	1	1	1	16	8000	6	1	2	2	2	1	2	2	2	2	1	1	1	2	1	2	1	2	10	30	5	2	2	3	3	2	1	2	1	4	2	1	3	4	4	3	1	150	46	95	110	67	1	2.22

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
378	1	1	1	17	20000	4	1	2	2	1	2	2	2	2	1	1	2	2	2	1	1	1	2	12	28	5	2	2	2	2	2	1	0	2	0	0	2	2	0	0	2	0	153	53	97	129	78	2	2.58
379	1	1	1	17	6000	2	1	2	2	2	1	2	1	2	1	2	1	2	2	1	2	1	1	14	35	3	1	2	3	3	2	2	2	3	2	4	2	3	1	4	3	3	160	50	102	107	60	2	1.68
380	1	1	1	16	8500	4	2	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	13	30	5	2	2	2	2	2	1	0	0	0	1	1	0	2	0	2	4	153	52	88	125	73	1	3.06
381	1	1	1	16	18000	4	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	27	4	1	2	3	2	2	2	1	0	2	2	2	2	0	0	2	2	158	48	96	120	80	2	0.74
382	1	1	1	16	3000	4	1	2	1	1	1	2	2	1	1	1	1	2	2	1	1	1	1	12	28	5	2	2	2	2	2	1	4	0	2	2	3	3	3	2	2	1	148	50	84	102	90	2	3.41
383	1	1	1	16	16000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	10	28	5	2	2	1	2	2	1	1	0	2	2	0	2	2	1	1	1	155	60	84	125	79	2	1.56
384	1	1	1	16	15000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	15	28	5	2	2	2	2	2	1	2	0	0	2	1	2	1	0	0	3	152	33	93	104	73	2	1.5
385	1	1	1	16	6000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	3	2	2	3	3	2	1	0	1	2	1	3	1	0	1	0	0	156	45	86	113	64	1	1.8
386	1	1	1	16	7500	5	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	2	10	25	5	2	2	2	2	2	1	1	2	2	2	3	2	2	1	1	1	155	60	92	127	79	1	1.43
387	1	1	1	17	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	34	5	1	1	2	2	2	1	0	2	1	0	4	3	0	2	1	0	147	35	95	112	77	2	1.92
388	1	1	1	17	4000	5	2	2	1	2	2	2	2	2	2	2	1	2	1	2	2	1	1	14	60	5	1	1	3	2	2	2	2	0	1	0	0	1	1	1	3	3	162	37	119	107	70	2	1.58
389	1	1	1	16	9000	4	2	2	1	2	1	2	2	2	2	2	2	1	1	2	1	1	2	15	30	5	2	2	2	2	2	1	1	0	1	2	2	2	0	1	1	1	164	38	114	94	66	1	0.76
390	1	1	1	17	10000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	3	2	2	2	3	2	1	3	4	2	4	2	4	4	3	3	4	162	53	76	122	73	2	2.23
391	1	1	1	16	12000	5	2	1	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	30	5	2	2	2	2	2	1	1	0	0	2	1	1	1	1	1	1	148	45	88	105	71	2	2.32
392	1	1	1	16	8000	6	2	2	2	2	1	2	1	2	1	2	1	2	2	2	1	1	1	12	30	5	2	1	3	3	2	1	0	0	1	0	2	4	0	1	2	2	143	41	92	113	77	2	3.24
393	1	1	1	16	10000	6	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	15	30	5	2	2	2	2	2	1	1	0	1	2	0	1	1	0	1	1	148	34	97	106	65	1	1.09
394	1	1	1	16	10000	5	1	2	2	2	1	2	2	2	1	1	1	2	2	1	1	1	1	11	28	5	2	2	3	2	2	3	1	2	3	3	4	4	2	3	2	4	139	44	59	102	74	1	1.3
395	1	1	1	17	10000	3	1	1	2	2	2	2	2	2	2	1	2	1	2	2	1	1	2	12	30	6	1	2	2	2	2	2	4	2	4	1	4	3	4	2	2	4	144	44	87	108	60	2	3.45
396	1	1	1	16	6000	3	1	2	1	1	1	2	2	1	1	1	1	2	1	2	1	1	1	15	120	6	1	1	3	1	1	1	3	4	4	3	2	4	4	3	2	4	150	40	66	92	58	1	150
397	1	1	1	17	15000	3	1	2	2	2	2	2	2	2	2	1	1	1	2	1	1	2	2	10	35	4	2	2	3	2	2	1	3	2	0	4	4	3	4	3	0	2	152	38	63	99	71	2	0.62
398	1	1	1	16	27000	4	1	2	2	2	2	2	2	2	1	1	1	1	2	1	1	2	2	11	30	30	2	2	2	2	2	1	0	0	2	2	1	3	2	1	4	0	154	35	126	119	71	2	1.89
399	1	1	1	17	18000	3	2	1	1	2	2	2	2	2	1	1	1	2	1	2	1	1	1	10	45	5	2	2	2	2	2	1	2	2	4	4	3	1	1	4	2	1	151	54	74	132	86	2	1.35
400	1	1	1	17	6000	4	1	2	2	1	1	2	2	2	2	1	1	2	1	2	1	1	1	14	25	5	1	1	2	2	2	1	4	3	4	3	1	2	4	2	4	4	146	39	78	118	75	1	1.12
401	1	1	1	17	12000	4	1	2	2	2	1	1	1	2	2	1	1	1	1	1	2	1	2	12	90	3	2	1	3	2	2	1	2	2	3	1	3	1	3	1	3	1	142	43	102	114	77	2	2.04
402	1	1	1	17	11500	4	2	2	2	2	2	2	2	2	2	1	1	2	1	2	2	1	1	10	45	7	1	2	2	2	2	1	4	2	4	3	1	4	3	4	3	4	159	40	98	94	60	2	1.95
403	1	1	1	17	7000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	11	28	5	2	2	2	2	2	1	2	0	2	3	0	1	2	0	0	3	156	45	89	117	77	1	32.23
404	1	1	1	17	18000	5	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	1	2	12	30	5	2	2	2	2	2	1	2	0	3	4	0	4	0	2	2	0	158	39	112	130	56	2	1.98
405	1	1	1	17	8000	5	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	14	30	5	2	2	2	2	2	1	4	3	4	3	0	2	4	1	4	3	160	45	105	132	82	2	2.32
406	1	1	1	16	13000	4	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	1	14	30	6	1	2	3	2	2	1	1	0	2	2	3	3	4	2	1	3	154	45	90	110	67	2	2.21
407	1	1	1	16	9000	3	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	10	40	4	2	2	2	2	2	1	2	1	2	2	2	1	3	2	2	1	163	70	101	119	83	2	1.98
408	1	1	1	16	10000	5	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	40	5	2	2	2	2	2	1	1	2	1	1	2	0	2	1	0	1	153	40	91	115	74	2	1.34
409	1	1	1	17	25000	4	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	1	2	13	35	3	2	2	3	2	2	1	2	1	2	0	0	3	0	0	2	3	149	40	98	117	77	1	3.11
410	1	1	1	16	21000	6	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	1	13	50	4	2	2	3	3	2	1	4	3	2	0	2	1	1	3	1	2	163	47	93	107	85	1	1.56
411	1	1	1	17	4000	3	1	2	1	1	2	2	2	2	2	1	1	2	2	1	2	1	1	14	60	4	2	2	2	2	2	1	2	4	1	3	4	2	3	1	4	4	157	48	80	105	73	2	1.38
412	1	1	1	17	6000	4	2	2	1	2	2	2	2	1	2	1	2	2	2	2	1	1	1	14	45	7	1	2	3	3	2	1	4	4	3	2	2	3	1	4	4	4	158	44	81	115	62	2	2.96
413	1	1	1	16	18000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	4	2	2	1	2	2	1	1	2	0	2	0	2	0	2	2	1	159	50	88	118	69	2	1.6
414	1	1	1	16	10000	3	1	2	2	2	1	1	1	2	2	1	1	2	2	1	1	1	1	14	40	4	2	2	3	1	1	1	2	4	3	1	3	4	3	4	3	4	156	45	102	118	66	1	6.47
415	1	1	1	16	12000	4	1	2	1	2	1	2	2	2	2	1	1	2	2	2	1	1	1	12	30	5	1	2	3	2	2	2	2	0	4	2	3	4	1	3	1	4	146	36	89	117	71	2	2.14
416	1	1	1	17	5000	3	1	2	1	2	1	2	2	2	1	2	2	2	1	1	1	1	2	12	30	6	1	2	2	2	2	2	1	3	2	1	4	2	3	1	3	2	138	34	106	92	80	2	1.63
417	1	1	1	16	15000	4	1	1	2	2	1	2	2	2	1	1	1	2	2	1	2	2	1	10	30	5	2	2	2	2	2	3	0	2	0	2	3	0	2	0	0	1	149	40	133	134	78	2	1.42
418	1	1	1	16	12000	6	1	1	2	2	1	2	2	2	1	1	1	1	2	2	1	1	2	12	30	4	2	2	2	2	2	1	3	0	3	4	4	4	2	2	4	4	155	45	114	127	84	2	1.75
419	1	1	1	16	3000	4	2	2	2	1	1	2	2	2	1	2	2	2	1	2	2	2	1	12	555	10	1	2	3	3	2	2	0	1	1	0	2	0	1	0	2	0	168	49	115	123	85	2	1.42
420	1	1	1	16	5000	5	1	2	2	2	2	2	2	2	2	1	2	1	1	1	2	2	2	15	30	6	1	2	2	2	2	1	2	4	2	3	1	4	1	3	3	3	150	30	99	105	63	2	2.1
421	1	1	1	16	6000	4	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	14	34	7	1	2	3	2	2	1	0	1	0	0	0	2	0	0	0	0	147	38	99	122	77	2	1.44
422	1	1	1	17	11000	5	1	1	2	1	2	2	1	2	2	1	1	2	2	2	1	1	2	14	28	7	1	2	2	2	2	2	2	4	2	3	1	4	2	3	2	4	156	41	79	118	70	2	0.83
423	1	1	1	17	6000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	0	2	0	3	2	1	2	0	0	0	148	50	107	124	82	2	2.28
424	1	1	1	17	5000	4	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	12	60	5	2	2	2	2	2	1	1	2	3	2	1	3	3	2	2	0	155	50	85	108	69	2	1.86
425	1	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	30	4	2	2	3	2	2	1	0	0	0	0	4	1	2	3	0	0	160	48	90	107	72	2	0.96
426	1	1	1	17	5000	4	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	12	30	6	1	2	2	2	2	1	0	0	2	3	1	3	0	3	0	0	158	57	94	123	67	1	3.12
427	1	1	1	16	14500	5	2	2	2	2	2	2	2	1	1	2	2	1	1	1	2	2	2	12	60	5	2	2	3	2	2	1	1	2	2	2	3	2	1	3	1	0	156	44	82	106	74	1	1.98
428	1	1	1	17	4000	3	1	2	2	2	1	2	2	2	2	1	2	2	1	2	1	2	1	14	28	5	2	2	2	2	2	2	2	2	3	0	4	0	0	2	4	2	162	40	83	110	56	2	1.67
429	1	1	1	17	7000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	34	3	2	2	3	2	2	1	0	0	0	0	0	1	0	0	0	0	160	52	90	118	67	1	1.22
430	1	1	1	17	3000	6	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	12	30	3	2	2	3	2	2	2	2	4	3	2	2	4	3	2	4	4	154	40	84	100	63	2	1.19
431	1	1	1	17	12000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	13	30	5	2	2	2	2	2	1	1	0	0	1	1	0	1	0	0	1	146	38	85	125	82	2	2.76

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
432	1	1	1	17	4500	6	2	2	2	1	2	2	2	2	2	2	2	1	1	2	2	2	2	13	30	7	1	2	2	2	2	1	1	2	0	0	2	2	1	1	0	0	155	41	67	84	54	1	1.24
433	1	1	1	17	16000	5	1	2	2	1	2	2	2	2	1	1	2	2	2	1	1	1	2	12	30	3	2	2	2	2	2	1	3	0	2	2	2	2	3	2	3	2	156	44	95	132	64	2	4.18
434	1	1	1	17	12000	8	1	2	2	1	2	2	2	2	1	2	1	2	2	1	1	1	2	15	28	5	2	2	3	2	2	3	2	2	4	2	2	3	2	1	2	2	152	38	115	99	69	2	2.61
435	1	1	1	16	20000	5	1	1	1	2	2	2	2	2	2	1	1	2	2	1	1	1	1	13	30	5	1	2	2	2	2	1	2	1	4	2	1	2	1	3	4	3	153	50	92	118	69	1	0.66
436	1	1	1	16	15000	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	30	5	2	2	3	2	2	1	3	2	2	2	0	3	2	3	3	3	157	50	114	120	84	2	2.4
437	1	1	1	17	10000	5	1	2	1	1	1	2	1	2	1	1	1	2	2	1	1	1	1	12	30	4	2	2	3	2	2	1	4	4	4	3	0	4	2	0	4	4	156	34	103	123	62	2	3.73
438	1	1	1	16	38000	5	1	2	2	1	2	2	2	2	2	1	2	2	1	2	1	2	2	14	35	5	2	2	3	3	2	3	3	1	2	3	1	3	2	3	3	3	155	35	65	93	64	1	6.02
439	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	45	6	1	2	1	2	2	1	2	0	0	1	3	0	4	0	1	0	151	51	74	125	68	2	2.31
440	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	14	30	5	2	2	2	2	2	1	2	0	2	3	2	3	2	3	4	4	155	52	65	132	86	1	4.22
441	2	1	1	16	7500	6	2	2	1	2	1	2	1	2	2	2	2	2	1	2	2	2	2	12	40	5	2	2	2	2	2	1	0	2	3	3	2	3	1	1	2	1	154	42	80	115	79	2	0.68
442	2	1	1	15	5000	5	2	2	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	14	30	5	2	2	2	2	2	3	0	0	0	0	0	1	0	0	1	2	154	39	97	94	71	1	2.12
443	2	1	1	15	20000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	29	3	2	1	3	2	2	1	2	2	2	4	1	2	2	4	0	0	151	49	100	124	87	2	1.13
444	2	1	1	16	7000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	1	14	90	10	2	2	3	2	2	1	2	0	2	0	0	2	4	0	3	0	164	54	90	134	94	1	1.25
445	2	1	1	15	5000	6	2	2	1	1	2	2	2	2	2	2	1	2	2	2	1	1	2	14	29	7	1	2	2	2	2	1	4	4	3	4	0	4	3	4	3	3	154	50	98	110	60	2	3.16
446	2	1	1	16	10000	4	1	2	1	2	1	2	2	2	2	1	1	2	1	1	1	1	2	15	30	7	1	2	2	2	2	3	2	0	4	2	0	1	4	2	4	4	166	42	100	100	65	2	1.56
447	2	1	1	15	6000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	14	29	5	2	2	2	2	2	3	1	0	0	1	3	0	1	2	1	0	156	46	72	116	76	2	1.34
448	2	1	1	15	13000	4	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	30	5	2	2	1	2	2	3	1	0	0	1	3	0	1	0	0	1	144	33	82	90	60	2	2.18
449	2	1	1	16	22000	4	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	28	5	2	2	2	2	2	1	3	0	1	0	0	0	2	3	3	0	162	59	73	96	73	2	2.83
450	2	1	1	16	12000	4	2	2	1	1	1	2	2	2	2	2	1	2	2	2	1	2	2	13	25	5	2	2	3	2	2	1	2	0	2	1	0	2	1	1	2	2	159	64	67	120	80	2	4.25
451	2	1	1	16	10000	4	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	2	11	24	4	2	2	3	2	2	1	0	0	1	0	0	0	0	0	0	0	153	47	100	122	75	2	2.05
452	2	1	1	16	12000	4	1	1	2	2	1	2	2	2	1	1	1	2	2	1	1	2	2	16	30	3	2	2	2	1	1	2	3	0	4	1	0	0	4	0	0	4	168	74	100	117	85	2	3.21
453	2	1	1	15	5000	4	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	12	25	5	2	2	3	2	2	1	0	2	2	3	4	0	2	0	3	0	153	60	76	87	63	2	1.48
454	2	1	1	15	8000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	1	2	12	45	4	2	2	3	2	2	1	0	2	2	3	0	1	0	0	0	0	146	46	100	85	74	2	2.31
455	2	1	1	15	7000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	11	555	5	2	1	3	2	2	1	0	0	2	4	0	0	0	0	0	0	138	38	100	113	71	2	1.56
456	2	1	1	15	5000	4	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	2	12	35	5	2	2	2	2	2	1	2	0	2	4	0	0	3	4	2	3	145	41	100	116	70	2	1.78
457	2	1	1	15	9000	6	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	1	2	12	30	5	2	2	3	2	2	1	1	1	2	3	1	2	3	2	2	2	148	48	81	110	75	1	5.67
458	2	1	1	16	3000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	2	0	4	1	0	0	0	0	2	2	155	54	97	114	85	2	1.35
459	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	28	6	1	2	3	2	2	1	1	0	1	2	2	1	1	1	2	1	156	38	100	118	66	2	1.19
460	2	1	1	16	3000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	8	1	2	2	2	2	1	0	1	0	2	0	2	1	1	0	1	155	50	88	123	82	2	0.98
461	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	13	28	5	2	2	2	2	2	1	1	0	0	2	0	2	2	1	1	2	154	47	98	107	98	2	2.86
462	2	1	1	15	2000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	11	30	6	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	146	38	100	112	76	1	2.45
463	2	1	1	16	8500	4	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	2	14	30	2	2	2	2	2	2	1	1	2	1	0	1	0	2	1	2	0	158	39	100	104	61	2	1.46
464	2	1	1	15	4000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	32	2	2	2	2	2	2	1	0	0	0	2	0	0	1	0	0	4	148	45	95	114	83	2	2.56
465	2	1	1	15	7000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	14	40	3	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	161	48	88	107	65	2	1.36
466	2	1	1	15	5000	4	2	2	2	2	1	2	2	2	2	2	2	2	1	1	1	2	2	12	28	6	1	1	2	2	2	1	4	2	4	3	4	3	3	4	4	4	154	47	92	95	60	2	2.76
467	2	1	1	16	9000	5	2	2	2	1	2	2	2	2	1	2	2	1	2	2	2	2	2	12	40	5	2	1	2	2	2	2	3	2	1	1	0	1	0	0	1	0	160	43	100	97	80	2	1.64
468	2	1	1	16	8000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	12	32	5	2	2	2	2	2	1	0	0	0	1	0	0	0	0	0	0	159	50	100	122	61	2	2.7
469	2	1	1	15	15000	5	2	2	2	2	1	2	1	2	1	1	1	1	2	1	2	1	2	12	30	5	1	2	3	2	2	1	2	1	3	4	2	0	2	2	2	4	163	49	100	121	74	2	1.77
470	2	1	1	16	15000	4	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	14	30	5	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	174	71	96	120	83	2	2.57
471	2	1	1	16	4000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	11	30	5	2	2	2	2	2	1	0	0	1	3	4	0	3	3	0	1	160	49	78	117	78	2	2.06
472	2	1	1	16	7000	4	1	2	1	1	1	2	2	2	1	1	1	2	2	1	1	1	2	12	40	5	1	2	1	2	2	1	0	0	4	4	0	3	2	0	4	3	154	40	86	106	63	1	2.37
473	2	1	1	16	5000	4	2	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	13	30	7	1	2	2	2	2	1	1	2	1	3	2	3	4	2	4	4	159	41	74	99	62	1	0.99
474	2	1	1	16	6000	4	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	1	2	15	35	6	1	1	1	2	2	1	2	0	2	2	1	2	3	0	4	2	156	34	100	108	66	2	0.88
475	2	1	1	16	6000	5	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	12	35	3	2	2	2	2	2	1	2	0	1	3	4	4	0	2	3	4	157	46	100	103	67	2	2.07
476	2	1	1	16	15000	4	1	2	2	1	1	2	2	1	2	2	1	2	2	2	2	2	2	10	28	6	1	1	1	2	2	2	1	4	2	1	3	3	2	3	3	2	154	45	95	108	60	2	1.49
477	2	1	1	16	3200	5	1	2	2	1	1	2	2	2	2	1	2	1	2	2	2	2	2	13	120	7	1	2	3	2	2	3	1	0	3	2	1	2	4	4	0	2	157	63	87	115	66	2	2.08
478	2	1	1	15	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	14	27	5	2	2	2	2	2	1	1	0	0	0	2	0	1	0	0	0	158	41	89	105	60	1	2.33
479	2	1	1	15	10000	3	2	1	1	1	2	2	2	1	2	1	2	2	2	2	1	1	2	12	30	4	2	2	2	2	2	2	2	1	3	1	0	4	1	2	3	3	154	77	95	127	79	2	1.97
480	2	1	1	16	4000	3	1	2	2	2	1	2	2	1	2	2	2	1	2	2	2	1	1	15	50	2	2	2	2	2	2	1	2	1	1	3	2	1	1	3	1	2	153	39	100	117	60	2	1.67
481	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	25	5	2	2	2	2	2	1	1	2	1	1	3	0	0	0	0	1	157	39	97	118	71	1	0.62
482	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	25	5	2	2	2	2	2	1	1	2	1	1	3	0	0	0	0	1	160	50	100	106	60	2	1.85
483	2	1	1	16	5000	5	1	2	2	1	1	1	2	1	1	1	2	2	2	1	1	1	1	13	30	3	1	2	2	2	2	2	3	4	4	0	4	0	4	3	4	4	159	64	72	112	54	2	1.59
484	2	1	1	16	8000	5	2	2	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2	14	26	7	1	2	3	3	2	1	1	0	0	1	2	0	1	2	0	2	159	46	100	124	84	1	0.95
485	2	1	1	16	8000	4	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	13	40	7	1	1	2	2	2	1	2	0	1	2	2	4	1	2	2	1	156	52	96	113	68	2	1.9

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
486	2	1	1	16	13000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	33	6	1	2	2	2	2	1	1	0	1	1	1	2	1	2	1	1	151	48	100	104	75	2	2.32
487	2	1	1	16	3000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	40	5	2	2	2	2	2	3	0	0	0	0	0	0	0	0	0	0	152	40	99	100	60	2	4.22
488	2	1	1	15	7500	6	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	2	2	2	1	3	4	4	3	2	2	2	154	46	91	110	83	1	3.81
489	2	1	1	16	10000	4	1	2	2	2	2	2	2	1	2	2	1	2	2	2	2	2	2	14	25	5	2	2	3	2	2	3	4	0	2	0	0	1	0	1	2	0	155	51	86	102	78	1	7.57
490	2	1	1	16	7000	6	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	26	4	2	2	3	2	2	1	2	0	3	1	1	0	1	4	2	2	161	48	100	96	74	2	2.17
491	2	1	1	15	11000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	4	2	2	3	2	2	1	0	2	3	1	4	4	2	1	0	0	147	42	96	128	78	2	2.41
492	2	1	1	15	15000	5	1	2	1	2	1	2	2	2	2	1	2	2	2	2	2	1	2	12	30	5	2	2	3	2	2	1	3	4	3	4	2	2	1	3	3	4	155	49	90	91	61	2	1.03
493	2	1	1	15	10000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	30	3	2	2	2	2	2	1	0	0	0	0	1	2	0	0	0	0	166	56	97	133	78	1	0.92
494	2	1	1	15	50000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	20	5	2	1	1	1	1	3	0	0	0	0	0	1	0	0	2	0	166	75	80	131	80	2	5.29
495	2	1	1	15	6000	5	1	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2	11	32	5	2	2	3	2	2	1	1	2	1	1	1	2	0	1	1	0	157	59	80	121	66	2	2.2
496	2	1	1	16	20000	4	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	40	6	1	2	3	2	2	1	2	0	2	0	1	0	2	0	0	1	151	59	94	118	85	2	2.44
497	2	1	1	15	12000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	12	30	5	2	2	1	2	2	1	4	0	2	0	0	1	0	1	2	0	156	47	100	124	71	2	2.61
498	2	1	1	16	17000	5	1	2	2	1	2	2	2	1	2	2	2	2	2	1	1	1	1	11	29	6	1	2	1	2	2	1	0	2	3	1	4	4	2	1	0	0	158	53	100	136	85	2	5
499	2	1	1	15	10000	4	2	2	1	1	1	2	2	2	2	1	1	2	2	1	2	2	2	13	30	5	2	2	3	2	2	2	2	1	2	3	0	3	0	1	3	4	161	55	88	110	69	2	1.55
500	2	1	1	15	3000	3	1	2	2	2	1	2	2	2	2	1	1	2	2	1	2	2	1	13	25	5	2	2	2	2	2	1	4	2	3	2	0	4	2	4	4	3	159	56	95	122	67	1	2.1
501	2	1	1	16	8000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	12	25	5	2	2	3	2	2	2	0	0	1	1	2	0	0	0	0	0	156	56	77	99	63	1	5.42
502	2	1	1	16	3000	4	1	2	1	1	2	2	2	2	1	2	2	2	2	1	1	1	1	12	25	5	2	2	3	2	2	1	3	4	3	4	2	2	1	3	3	4	159	44	91	104	67	1	1.07
503	2	1	1	15	4500	3	1	1	1	1	1	2	2	2	2	1	1	1	2	1	1	1	1	13	25	5	2	1	2	2	2	2	1	1	3	1	0	3	2	0	4	4	143	47	86	103	63	2	2.55
504	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	13	30	5	2	2	1	2	2	2	2	2	2	0	2	3	0	2	1	0	152	51	100	109	80	2	1.65
505	2	1	1	16	6500	4	2	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2	13	25	5	1	2	2	2	2	1	1	0	1	0	1	1	1	0	1	2	157	59	89	126	85	2	1.89
506	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	40	6	1	2	2	2	2	1	0	2	0	3	1	2	2	0	2	0	159	43	101	90	86	2	2.19
507	2	1	1	16	8000	4	1	2	2	2	2	2	2	1	1	2	1	2	2	2	1	2	1	13	27	5	2	2	1	2	2	3	2	0	0	1	2	4	1	0	1	3	157	56	79	120	65	1	1.36
508	2	1	1	16	10000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	12	28	2	2	2	1	2	2	1	1	3	1	3	3	1	3	2	2	0	152	61	75	120	90	2	1.47
509	2	1	1	16	13000	3	1	2	2	1	1	2	2	2	2	1	1	2	2	2	2	2	1	13	60	3	1	1	2	2	2	1	4	4	2	4	4	4	3	3	4	4	147	34	70	100	70	2	0.97
510	2	1	1	16	4000	4	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	14	25	6	1	2	2	2	2	2	2	0	1	0	1	1	0	1	1	3	161	70	81	120	70	2	1.39
511	2	1	1	15	15000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	12	25	5	2	2	2	2	2	1	1	1	1	3	2	2	3	1	1	1	164	49	74	100	70	2	0.7
512	2	1	1	16	6000	6	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	2	11	28	5	1	2	2	2	2	1	0	0	1	1	3	1	0	0	0	0	159	66	90	126	80	1	0.64
513	2	1	1	16	7000	4	1	2	2	2	1	2	2	2	2	2	2	2	2	1	1	2	2	13	25	5	2	2	2	2	2	1	2	2	4	2	4	2	2	2	2	1	148	40	68	104	67	2	1.77
514	2	1	1	16	8000	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	12	90	4	2	1	2	2	2	2	0	0	1	0	1	3	0	0	0	0	164	66	100	115	68	2	1.34
515	2	1	1	15	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	30	7	1	2	2	2	2	2	2	1	3	2	3	3	4	3	0	1	146	41	77	103	64	2	3.92
516	2	1	1	16	4000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	26	5	2	2	2	2	2	1	0	0	2	3	4	1	0	0	0	0	161	60	98	95	70	2	2.27
517	2	1	1	16	38000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	30	5	2	2	2	2	2	1	0	1	1	4	4	0	2	3	0	1	153	54	77	116	81	2	1.88
518	2	1	1	15	4000	5	2	2	1	2	1	2	2	2	2	1	2	2	2	2	2	2	1	12	26	3	2	1	1	2	2	2	3	0	0	1	3	4	3	2	4	2	154	56	75	99	62	1	2.07
519	2	1	1	15	8000	4	1	2	1	1	2	2	2	2	2	1	1	1	2	1	1	1	2	12	28	5	2	2	3	2	2	2	2	2	3	4	4	4	2	4	4	4	148	54	84	125	78	2	1.67
520	2	1	1	15	5000	4	2	2	1	2	2	2	2	1	1	2	1	2	2	2	2	2	2	13	30	5	2	2	3	2	2	1	0	1	1	1	2	0	0	0	0	1	153	36	86	112	66	1	1.63
521	2	1	1	15	5000	4	1	2	2	1	1	2	2	2	1	2	1	2	1	1	1	1	2	12	25	5	2	2	3	2	2	1	2	0	3	2	0	2	1	2	3	2	149	35	86	113	77	2	3.41
522	2	1	1	16	15000	5	1	2	1	2	2	2	2	2	2	2	1	2	2	1	1	1	2	15	28	7	1	2	2	2	2	3	1	0	2	0	1	3	3	2	2	3	155	41	105	100	64	2	1.66
523	2	1	1	15	15000	4	2	2	2	1	1	2	2	2	1	1	1	2	2	2	2	2	2	13	27	5	1	1	2	2	2	1	4	3	3	1	0	2	2	3	4	4	164	47	88	91	56	2	1.17
524	2	1	1	16	10000	5	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	14	22	4	2	2	2	2	2	1	2	3	3	1	3	2	2	2	1	1	168	54	93	125	83	1	0.34
525	2	1	1	15	7000	4	2	2	2	2	2	2	1	2	1	2	1	2	2	1	2	2	2	12	34	4	2	2	2	2	2	1	2	0	0	0	0	2	0	0	1	0	157	49	78	103	69	1	2.11
526	2	1	1	16	6000	4	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2	2	1	12	18	3	2	2	2	2	2	1	2	0	1	4	4	0	0	3	1	2	145	38	100	126	85	2	1.36
527	2	1	1	15	3000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	12	28	5	2	2	3	2	2	1	0	0	2	0	2	2	0	0	0	0	150	59	73	121	82	1	1.46
528	2	1	1	16	10000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	4	2	2	2	2	2	1	0	0	0	1	0	0	0	0	0	0	154	46	100	129	86	1	2.03
529	2	1	1	16	6000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	40	6	1	2	2	2	2	1	0	0	0	0	1	0	0	0	0	0	151	36	83	96	53	2	2.5
530	2	1	1	15	6000	5	1	2	2	2	1	2	2	2	2	1	1	2	2	2	1	2	2	13	25	3	2	2	3	3	2	1	2	0	4	0	1	1	4	0	4	2	147	43	87	97	82	2	1.34
531	2	1	1	16	8000	4	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	1	2	3	2	2	3	2	1	2	3	0	2	0	3	0	0	155	36	95	133	94	2	1.51
532	2	1	1	15	6000	6	1	2	1	2	1	2	2	1	2	2	1	2	2	2	1	1	2	13	32	5	2	2	1	2	2	3	2	2	2	2	3	1	1	2	3	1	153	42	77	115	75	2	1.31
533	2	1	1	16	11000	7	2	2	2	2	1	2	2	2	2	1	2	2	2	1	1	2	1	14	25	5	2	2	2	2	2	1	2	2	3	2	2	3	3	2	3	4	153	40	74	107	61	2	0.84
534	2	1	1	15	7000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	13	35	5	2	2	2	2	2	3	1	0	2	1	0	0	1	0	0	0	161	44	78	90	60	2	3.49
535	2	1	1	15	7000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	27	5	2	2	2	2	2	1	0	0	0	1	2	2	0	0	0	0	159	51	73	104	60	1	2.09
536	2	1	1	15	8000	6	2	2	1	2	2	2	2	2	2	2	2	1	1	2	2	2	2	12	30	7	1	2	2	2	2	1	1	0	1	0	2	2	0	1	2	2	160	40	76	131	86	2	2.98
537	2	1	1	15	5000	5	2	2	2	2	1	2	1	2	1	1	1	1	1	2	1	2	2	12	28	5	1	2	3	2	2	3	1	2	3	0	3	4	1	1	2	4	165	47	94	118	63	2	2.25
538	2	1	1	16	3800	5	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	1	2	10	27	3	2	2	2	2	2	1	1	0	3	0	3	2	1	0	3	0	156	54	86	108	80	2	1.48
539	2	1	1	15	13000	6	2	2	1	1	2	2	2	2	2	2	2	2	2	1	2	2	1	12	28	9	1	2	2	2	2	1	4	4	2	4	4	2	3	4	4	4	161	50	98	116	61	2	3.41

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
540	2	1	1	16	10000	4	1	2	1	2	1	2	2	2	2	1	2	2	2	2	2	1	2	12	30	5	2	2	3	2	2	2	1	2	3	4	2	2	1	3	4	4	160	45	95	110	80	1	0.84
541	2	1	1	15	14000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	50	4	2	2	2	1	2	2	2	4	1	4	4	3	2	4	3	4	159	70	100	126	84	1	2.58
542	2	1	1	15	5000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	25	5	2	2	3	2	2	1	2	0	0	0	0	1	4	0	4	2	151	46	76	111	61	2	3.69
543	2	1	1	16	6500	4	1	2	2	2	1	2	2	2	1	1	1	2	2	2	2	2	1	12	28	6	1	1	1	2	2	2	3	3	1	3	4	3	2	3	4	2	172	58	85	115	64	2	1.78
544	2	1	1	15	5000	4	2	2	2	2	2	2	2	1	2	2	2	1	2	2	2	2	2	15	30	7	1	2	3	2	2	2	0	0	1	2	2	1	0	0	2	0	163	49	89	125	101	1	3.1
545	2	1	1	15	12000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	3	2	2	2	2	2	1	0	1	2	2	4	2	1	1	2	0	158	52	98	111	74	2	4.28
546	2	1	1	16	10000	5	1	2	2	2	1	2	2	2	2	1	1	2	2	2	1	2	2	11	25	5	1	2	3	3	2	1	2	4	4	0	1	3	4	0	4	2	146	42	79	104	62	2	2.06
547	2	1	1	16	5000	4	1	1	1	1	1	2	1	1	2	1	1	2	2	1	1	1	1	12	120	12	3	1	1	1	1	1	2	2	4	0	2	3	4	0	4	2	146	65	86	111	72	2	1.31
548	2	1	1	16	8200	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	40	5	2	2	3	2	2	1	0	0	0	3	1	2	0	2	0	0	147	38	92	116	73	2	0.76
549	2	1	2	17	10000	3	2	2	1	2	2	2	2	2	1	1	2	2	2	1	2	2	2	14	35	5	2	2	3	2	2	1	0	1	1	2	2	0	3	2	3	4	149	35	92	113	81	2	3.22
550	2	1	2	18	13000	6	2	2	2	2	1	2	2	2	1	1	1	1	2	2	2	1	1	14	25	3	2	2	2	3	2	1	3	0	0	1	3	1	1	3	1	0	157	47	89	89	56	1	0.93
551	2	1	2	17	20000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	15	30	7	1	2	3	2	2	1	0	0	2	3	3	2	2	3	3	4	155	43	80	84	64	2	4.38
552	2	1	2	17	30000	5	1	2	2	1	2	2	2	2	2	1	1	1	2	2	1	1	1	15	23	3	2	2	3	2	2	1	3	2	4	4	0	4	3	1	4	4	155	44	81	104	62	1	0.93
553	2	1	2	17	12000	4	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	11	20	5	1	2	2	2	2	2	1	1	1	1	0	1	1	1	1	1	149	40	98	122	81	2	1.8
554	2	1	2	19	14000	3	1	2	2	1	1	2	2	2	2	1	1	2	1	1	1	1	1	11	30	4	2	2	2	2	2	1	2	3	2	3	1	3	1	1	3	4	154	34	100	111	76	1	2.83
555	2	1	2	18	6000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	13	30	7	1	2	3	2	2	1	2	1	2	2	4	1	2	3	1	0	161	52	98	104	58	1	2.56
556	2	1	2	17	21000	4	1	2	1	2	1	2	2	2	1	2	1	2	1	1	1	1	2	12	28	4	2	2	3	2	2	1	2	0	2	2	0	2	0	3	0	4	147	47	97	116	65	2	1.29
557	2	1	2	17	6000	4	1	2	2	2	2	2	2	2	1	1	1	2	2	2	2	1	2	12	27	3	2	2	3	2	2	1	1	0	2	2	2	3	2	3	3	1	153	42	84	124	74	2	2.01
558	2	1	2	17	8000	4	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	14	30	5	2	2	3	2	2	3	2	1	1	1	2	1	1	1	2	2	147	36	110	110	76	2	2.23
559	2	1	2	19	42000	4	2	2	2	2	2	1	2	2	2	2	2	2	2	1	2	1	1	13	90	6	1	1	1	1	1	3	1	0	1	0	0	1	4	0	1	4	145	44	84	113	80	1	2.15
560	2	1	2	19	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	16	30	3	2	2	2	2	2	3	1	0	1	0	0	1	4	0	1	4	154	44	78	95	62	2	1.35
561	2	1	2	18	30000	4	1	2	1	2	1	2	2	2	1	2	2	2	2	2	1	1	1	13	30	5	1	2	2	2	2	1	2	3	3	0	0	0	2	2	3	3	155	48	98	144	87	2	1.74
562	2	1	2	18	10000	5	1	2	2	2	1	2	2	2	2	2	2	1	2	2	2	1	1	14	30	5	1	2	2	2	2	1	1	0	0	1	0	1	0	0	1	2	159	46	89	105	67	2	3.33
563	2	1	2	18	3000	6	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	30	6	1	2	2	2	2	3	0	0	0	0	1	1	1	0	2	0	160	50	83	100	60	1	2.25
564	2	1	2	19	10000	4	1	2	1	1	1	2	2	2	2	1	2	2	2	1	2	2	2	14	30	5	2	2	3	2	2	1	0	0	0	3	3	1	0	1	0	0	167	53	90	101	70	1	2.19
565	2	1	2	17	10000	4	1	2	2	1	2	2	2	2	2	2	1	1	2	2	2	1	2	13	30	4	2	2	3	2	2	2	1	3	1	3	3	2	2	1	3	1	146	47	87	110	70	2	0.85
566	2	1	2	17	12000	5	2	2	1	2	1	2	2	2	1	2	2	2	2	1	1	1	2	14	50	3	2	2	2	2	2	1	0	1	0	3	2	3	0	1	0	1	152	40	84	90	60	2	1.34
567	2	1	2	17	10000	4	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	1	2	13	21	5	2	2	2	2	2	2	1	1	0	2	0	2	1	0	0	2	155	36	97	105	69	2	1.11
568	2	1	2	17	49000	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	21	5	2	2	2	2	2	1	2	0	2	3	3	2	0	0	0	1	150	45	84	120	70	1	1.77
569	2	1	2	17	10000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	2	1	1	2	2	1	0	0	0	4	0	0	2	2	3	2	163	43	106	113	88	2	3.95
570	2	1	2	19	9000	4	2	2	2	2	1	2	2	2	2	1	1	2	1	1	1	1	1	14	25	5	2	2	3	2	2	1	2	1	3	2	2	3	1	1	1	2	144	49	110	137	91	1	2.67
571	2	1	2	16	2500	5	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	14	30	3	2	2	3	2	2	1	2	0	1	4	3	1	2	3	1	0	148	39	61	113	62	2	3.07
572	2	1	2	19	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	3	2	2	2	2	2	1	3	2	3	2	1	1	1	2	2	3	155	44	77	113	64	2	0.96
573	2	1	2	17	15000	3	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	14	28	5	1	2	3	2	2	3	0	1	0	3	3	0	0	0	1	1	149	44	83	118	71	1	3.31
574	2	1	2	19	36000	4	2	1	2	2	1	2	2	2	2	1	1	2	2	2	1	1	1	16	28	5	2	2	2	2	2	1	1	3	2	4	4	3	4	4	2	1	157	52	77	104	67	2	1.21
575	2	1	2	19	48000	5	1	2	2	1	1	2	2	2	2	1	1	2	2	1	1	1	2	12	30	5	2	2	3	2	2	2	3	4	3	2	2	2	3	4	4	3	151	54	98	116	76	2	1.36
576	2	1	2	17	60000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	3	2	2	1	0	0	0	0	1	2	0	3	0	0	154	38	92	106	68	2	1.29
577	2	1	2	18	4000	5	2	2	1	2	2	2	2	2	1	2	1	2	2	2	2	1	2	14	30	5	2	2	3	2	2	3	2	0	0	4	2	0	0	1	1	2	151	40	100	121	86	2	2.75
578	2	1	2	18	4000	4	1	2	1	2	2	2	2	2	1	2	2	2	1	2	2	2	2	15	30	5	2	2	2	2	2	1	1	1	0	2	2	1	2	2	0	0	166	35	99	91	60	1	12.58
579	2	1	2	18	3000	4	1	2	1	1	1	2	2	1	2	1	1	2	2	2	1	1	2	13	30	5	1	1	3	3	2	2	3	0	2	0	2	4	0	0	2	3	151	39	100	120	80	1	1.67
580	2	1	2	17	10000	3	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	13	27	5	1	2	3	2	2	1	2	0	1	2	2	0	1	2	2	1	164	45	76	85	58	2	2.28
581	2	1	2	18	10000	5	1	2	2	1	1	2	2	2	1	1	2	2	2	1	1	2	1	13	30	3	2	2	3	2	2	1	3	1	2	0	4	4	1	2	2	4	153	61	98	121	96	2	2.28
582	2	1	2	19	6000	2	1	1	2	2	2	2	2	2	2	1	1	2	2	1	1	1	2	13	60	7	1	1	1	1	1	1	4	3	4	2	3	2	1	2	3	4	161	69	87	127	80	1	0.63
583	2	1	2	19	25000	4	1	2	2	1	2	2	2	2	2	1	1	2	2	1	1	1	1	14	60	3	2	2	3	3	2	1	2	2	3	1	1	1	1	0	1	2	155	41	100	99	60	1	0.01
584	2	1	2	19	20000	4	1	2	2	1	1	2	2	1	2	1	1	2	2	1	1	2	1	13	60	3	2	2	3	2	2	3	3	0	1	2	0	3	2	2	3	4	157	55	96	110	70	2	1.26
585	2	1	2	18	3000	4	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	28	3	2	2	3	2	2	1	2	2	4	0	1	2	0	0	1	2	148	39	90	98	60	1	3.1
586	2	1	2	19	9000	5	2	2	1	2	2	2	2	1	1	2	1	2	1	2	2	1	2	15	30	6	1	2	3	2	2	1	1	0	0	1	0	1	0	0	0	0	160	34	80	99	73	2	1.93
587	2	1	2	17	10000	5	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	2	13	30	4	2	2	3	2	2	1	3	1	1	1	2	3	3	2	0	1	160	60	82	109	75	2	3.16
588	2	1	2	17	17000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	14	40	4	2	2	3	2	2	3	0	0	0	0	1	0	0	0	1	2	154	45	91	117	73	1	59.63
589	2	1	2	17	15000	4	1	2	2	2	1	2	2	2	1	2	2	1	1	1	2	1	2	13	30	30	1	1	3	3	2	3	0	0	0	0	1	2	0	1	1	0	152	49	71	116	56	1	3.8
590	2	1	2	17	7000	5	2	2	2	2	2	2	2	2	1	2	1	2	1	2	1	1	1	14	30	30	1	1	3	3	2	3	0	0	0	0	0	1	1	0	2	0	147	38	90	107	73	1	2.81
591	2	1	2	18	9000	5	2	2	2	2	2	2	2	2	1	1	1	2	1	2	2	1	1	17	40	3	2	2	2	2	2	3	1	1	2	2	2	1	1	2	3	2	151	44	74	110	60	2	2.4
592	2	1	2	17	24000	5	2	1	1	2	1	2	2	2	1	2	2	1	2	1	1	1	2	14	30	3	2	2	3	2	2	2	1	1	2	2	2	1	1	2	3	2	154	50	90	120	70	2	1.94
593	2	1	2	17	8000	5	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	15	28	5	2	1	2	2	2	3	1	0	0	1	1	1	1	1	3	3	155	65	85	115	62	1	1.17

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
594	2	1	2	17	14000	6	1	2	2	1	1	2	2	2	1	1	1	2	2	1	1	1	2	14	30	5	1	1	2	2	2	1	3	3	4	0	3	2	4	4	0	0	157	51	71	106	72	2	1.57
595	2	1	2	17	14000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	24	4	2	2	2	2	2	1	1	0	0	4	0	1	3	3	0	0	150	42	91	100	70	2	3.69
596	2	1	2	18	50000	4	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	13	21	5	2	2	3	2	2	3	3	2	1	4	0	2	1	0	0	0	157	40	84	110	69	2	2.19
597	2	1	2	18	10000	2	1	2	1	1	2	2	2	2	2	1	2	1	1	2	1	1	2	12	28	3	2	2	3	2	2	3	1	0	2	3	0	1	2	1	4	2	156	37	105	112	72	2	5.15
598	2	1	2	19	12500	4	1	2	2	1	1	2	2	2	2	1	1	2	1	1	1	1	2	14	30	3	2	2	3	2	2	1	1	2	3	4	4	3	1	0	1	2	150	38	99	107	70	1	3.57
599	2	1	2	17	6000	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	14	29	5	2	2	3	2	2	2	2	1	2	2	0	2	0	1	1	4	160	42	79	96	58	2	1.2
600	2	1	2	18	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	15	30	5	2	2	3	2	2	1	0	0	1	2	4	4	2	1	0	1	153	35	100	95	59	1	1.81
601	2	1	2	17	6000	5	1	2	1	2	2	2	1	1	2	2	1	2	2	1	1	1	2	16	30	4	1	2	3	2	2	1	2	0	3	2	4	1	2	2	1	0	151	46	102	120	86	1	3.74
602	2	1	2	19	17000	4	1	2	1	1	2	2	2	2	1	1	1	2	1	1	1	1	2	14	30	3	2	2	2	2	2	1	4	4	4	2	2	4	2	2	4	4	156	39	76	100	60	2	2.61
603	2	1	2	17	6000	4	2	2	2	1	2	2	2	2	2	1	1	1	1	1	2	1	1	14	30	3	2	2	3	2	2	1	3	2	4	3	2	4	2	4	3	4	151	34	100	103	67	2	1.26
604	2	1	2	18	5000	4	1	2	1	1	2	2	2	2	2	1	1	1	1	2	1	2	1	14	30	5	1	2	3	1	1	1	1	0	2	2	0	4	0	1	3	2	163	35	98	101	68	2	0.53
605	2	1	2	18	15000	4	1	2	1	1	2	2	2	2	1	1	1	2	1	2	1	1	2	14	28	3	1	2	3	2	2	1	2	1	3	0	0	4	0	0	4	4	161	40	93	104	67	1	1.93
606	2	1	2	18	8000	5	1	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	13	60	5	2	2	3	2	2	3	2	0	2	0	2	0	1	0	2	0	157	61	87	99	71	2	1.49
607	2	1	2	19	3000	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	14	40	3	2	2	1	2	2	1	2	0	1	1	2	3	2	3	0	1	149	55	93	110	70	2	6.62
608	2	1	2	17	10000	5	2	2	1	1	1	2	2	2	2	2	2	2	1	2	2	2	2	14	28	4	1	2	3	2	2	1	2	1	0	0	4	1	0	0	0	1	156	43	100	121	88	1	1.77
609	2	1	2	17	1500	5	2	2	2	2	2	1	2	2	2	2	1	1	2	2	2	2	2	13	40	5	1	2	3	2	2	3	1	0	4	0	0	2	0	0	2	0	149	46	88	96	56	1	3.64
610	2	1	2	19	20000	6	1	2	1	2	1	2	2	2	1	1	1	1	1	1	1	1	1	12	30	3	1	2	3	2	2	1	2	4	2	4	4	1	2	1	0	4	154	42	86	106	65	2	1.58
611	2	1	2	17	48000	3	1	2	1	1	2	2	2	2	2	2	2	2	2	1	1	1	2	12	30	3	1	2	3	2	2	2	2	2	2	4	2	2	2	2	2	2	158	41	80	99	55	1	7.49
612	2	1	2	18	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	5	2	2	3	2	2	1	1	0	1	3	0	1	0	1	1	0	153	53	86	115	75	1	2.29
613	2	1	2	17	14000	5	1	2	1	1	2	2	2	2	2	1	1	1	1	2	1	1	2	14	40	5	2	2	3	2	2	2	2	4	4	3	1	1	0	0	3	4	153	35	100	97	62	2	1.56
614	2	1	2	18	27000	5	2	2	2	2	1	2	2	2	2	1	2	2	2	1	2	1	2	12	25	6	1	2	1	2	2	3	3	2	3	1	1	0	0	1	4	2	148	37	110	110	80	1	2.24
615	2	1	2	18	5400	6	2	2	1	2	1	2	1	2	1	1	1	2	2	1	1	1	2	13	28	7	1	2	1	2	2	3	3	0	3	1	1	3	1	1	4	1	156	45	100	127	84	2	1.99
616	2	1	2	17	9000	5	1	1	1	1	2	2	2	1	1	2	1	2	2	2	1	1	1	13	30	5	2	2	1	1	2	3	3	4	2	4	4	2	4	2	4	0	160	50	85	102	74	1	4.71
617	2	1	2	17	9000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	28	5	2	2	2	2	2	1	0	0	1	4	2	0	3	2	0	1	157	47	84	112	70	2	3.55
618	2	1	2	18	6000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	666	666	666	666	2	3	2	2	1	1	2	1	1	2	1	1	2	0	2	149	34	68	98	67	1	1.18
619	2	1	2	18	11000	7	1	2	2	2	1	2	2	2	1	2	1	2	2	2	2	1	2	13	35	6	1	2	2	2	2	1	3	0	1	3	4	4	1	2	4	1	152	41	76	99	64	1	4.6
620	2	1	2	19	8000	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	2	14	30	5	2	2	2	2	2	1	2	1	0	3	2	2	0	0	0	1	156	40	99	105	67	2	1.04
621	2	1	2	17	10000	5	2	2	1	1	2	2	2	2	2	1	2	2	2	1	2	1	1	13	30	4	2	2	1	2	2	1	4	4	4	1	0	1	2	0	4	4	152	45	78	111	89	1	34.19
622	2	1	2	17	6000	3	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	11	25	5	2	2	3	2	2	1	1	0	4	3	2	0	2	1	0	4	146	41	79	98	68	1	1.15
623	2	1	2	17	6000	5	2	1	2	2	2	2	2	2	1	2	2	1	2	1	1	2	1	14	25	3	2	2	3	2	2	1	1	0	0	2	2	2	3	0	0	0	156	56	98	106	76	1	2.55
624	2	1	2	18	5000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	11	30	4	2	2	2	2	2	1	2	4	3	4	1	0	0	0	1	0	160	60	79	112	74	2	4.67
625	2	1	2	17	13000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	31	6	1	2	3	2	2	1	0	0	1	3	3	0	0	1	0	0	156	41	100	119	81	1	4.72
626	2	1	2	17	7000	4	2	2	2	2	1	2	2	2	1	2	1	1	1	2	1	1	1	14	60	5	2	2	1	1	1	3	3	4	1	2	1	4	0	1	4	3	156	39	92	101	70	2	3.75
627	2	1	2	18	12000	5	1	2	2	2	1	2	2	2	2	2	1	2	2	2	1	2	1	13	30	5	2	2	3	2	2	2	2	1	2	0	1	0	2	3	4	3	158	44	100	116	86	2	1.71
628	2	1	2	17	9000	3	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	24	5	2	2	3	2	2	2	2	0	0	2	1	0	2	4	2	2	150	34	98	128	79	2	2.96
629	2	1	2	18	10000	5	2	1	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	30	5	1	2	3	3	2	1	2	0	1	3	2	4	0	2	3	4	157	41	100	109	61	2	1.89
630	2	1	2	18	8000	5	1	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	13	28	5	1	2	2	2	2	1	2	1	1	2	2	3	1	3	3	3	151	42	96	113	61	1	1.67
631	2	1	2	17	13000	4	1	2	1	1	2	2	2	2	1	1	1	2	1	1	2	2	2	12	30	5	2	2	3	2	2	2	0	0	1	0	2	2	0	2	1	4	145	40	90	99	57	1	2.79
632	2	1	2	18	10000	4	1	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	16	40	5	2	2	2	2	2	2	2	0	0	0	0	0	0	0	2	0	155	40	79	116	64	2	1.67
633	2	1	2	18	21000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	25	5	2	2	3	2	2	1	2	2	1	0	1	0	1	0	1	0	161	44	94	112	76	2	2.48
634	2	1	2	17	60000	7	2	2	1	2	2	2	2	2	2	2	2	2	1	1	1	2	2	14	25	5	2	2	1	2	2	1	1	4	1	2	0	0	1	2	4	0	172	42	106	90	60	2	1.29
635	2	1	2	17	15000	7	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	5	2	2	2	2	2	3	2	1	3	1	1	2	3	2	1	1	159	41	91	108	74	2	2.11
636	2	1	2	18	4000	4	2	2	2	2	1	2	2	2	1	2	2	2	1	1	2	2	1	14	30	7	1	2	3	2	2	2	0	0	0	0	1	1	0	0	0	1	157	41	114	96	60	2	1.14
637	2	1	2	17	72000	5	2	2	1	2	1	2	2	2	2	2	1	2	1	2	2	2	2	14	40	7	1	2	3	1	2	1	1	0	1	3	0	0	1	1	2	1	157	39	74	110	72	1	2.24
638	2	1	2	17	7000	4	1	1	1	1	1	2	1	2	1	2	1	1	2	1	1	1	1	14	60	6	1	2	3	3	2	2	3	4	4	0	3	0	2	1	1	2	156	70	92	115	78	1	4.93
639	2	1	2	19	64000	4	2	1	2	2	2	2	2	2	2	2	1	1	2	2	1	1	1	14	60	2	2	1	2	2	2	1	1	1	2	3	1	3	2	2	3	2	155	61	97	123	86	2	2.77
640	2	1	2	18	10000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	14	28	5	2	2	3	2	2	1	3	1	2	1	2	2	2	4	4	4	157	45	80	121	73	1	2.87
641	2	1	2	17	10000	6	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	2	2	16	30	5	2	2	2	2	2	2	1	1	2	1	2	2	3	4	4	4	152	34	114	106	71	1	2.28
642	2	1	2	17	18000	6	2	2	2	2	1	2	2	2	1	2	1	2	2	2	2	1	2	16	30	5	2	2	3	3	2	3	0	1	2	3	4	0	0	2	2	0	154	38	101	127	86	2	1.05
643	2	1	2	17	26000	5	2	2	1	1	1	2	1	2	2	2	2	2	2	1	2	2	2	13	26	3	2	2	3	2	2	1	2	2	2	1	2	1	2	1	2	2	146	38	82	90	56	1	1.56
644	2	1	2	18	6000	4	1	2	2	2	2	2	1	2	2	2	2	2	2	1	1	1	2	13	28	5	2	2	3	2	2	2	2	3	4	2	1	2	4	3	4	3	153	38	98	104	68	1	0.62
645	2	1	2	18	15000	4	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	14	30	4	2	2	3	2	2	1	0	1	2	0	0	2	0	0	2	1	170	44	100	98	72	2	2.98
646	2	1	2	17	14500	4	2	2	2	1	2	2	2	2	2	2	2	1	1	1	2	1	1	12	30	5	1	2	3	2	2	2	2	2	1	3	4	4	0	0	2	4	156	42	100	108	66	2	1.57
647	2	1	2	17	2000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	14	30	7	1	2	3	2	2	1	0	0	1	2	0	0	0	0	0	0	165	46	84	139	81	2	1.43

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
648	2	1	2	19	4000	3	1	2	2	1	2	2	2	2	2	2	1	2	2	2	2	1	2	15	30	5	1	2	3	2	2	1	2	1	2	3	4	2	2	1	4	4	155	49	77	106	62	1	1.28
649	2	1	2	19	8000	6	1	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	28	6	1	2	2	2	2	1	2	2	2	3	0	1	1	3	3	0	154	41	78	94	58	2	1.93
650	2	1	2	18	72000	6	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	1	2	13	30	4	2	2	2	2	2	1	0	0	1	0	2	0	3	0	0	0	163	52	84	118	66	1	1.12
651	2	1	2	17	17500	3	1	2	1	1	1	1	2	2	2	1	1	2	2	2	1	1	2	12	60	5	1	2	2	2	2	1	2	1	4	1	0	4	0	1	4	3	150	37	97	110	78	2	1.52
652	2	1	2	18	4000	4	1	2	2	2	2	2	2	2	1	1	2	2	1	2	1	2	1	14	31	5	2	2	3	2	2	1	2	0	2	2	2	2	3	3	2	1	159	40	83	89	61	1	1.24
653	2	1	2	17	7000	4	2	2	1	2	2	2	2	2	1	2	1	1	2	2	2	2	2	15	30	5	2	2	3	2	2	1	0	0	2	2	0	4	3	1	4	2	157	41	86	111	61	2	2.13
654	2	1	2	17	4000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	14	30	7	1	2	3	2	2	1	1	2	2	1	0	0	0	1	1	1	161	45	77	104	64	2	2.86
655	2	1	2	19	7000	3	2	1	2	2	2	2	2	2	2	1	1	1	2	1	1	1	2	13	30	7	1	2	2	2	2	1	2	2	1	1	0	4	2	0	0	4	149	54	78	111	74	1	3.18
656	2	1	2	17	4000	5	1	1	2	2	1	2	2	2	1	2	1	2	2	2	1	1	2	13	40	5	1	2	2	2	2	1	1	2	1	3	2	1	2	3	1	1	160	62	84	118	76	2	2.82
657	2	1	2	19	21000	6	1	2	1	2	1	2	2	2	1	1	2	2	2	2	2	2	1	15	30	5	1	2	2	2	2	2	0	1	0	2	0	3	0	4	0	1	147	39	82	98	56	2	2.16
658	2	1	2	17	11000	6	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	1	14	30	5	2	2	1	2	2	1	0	2	1	2	1	2	1	3	1	2	155	47	82	110	70	1	2.63
659	2	1	2	17	10000	6	1	2	1	2	1	2	2	2	2	1	1	2	2	1	2	1	2	14	40	3	2	2	3	2	2	2	1	1	1	2	2	1	1	1	2	2	152	40	84	112	70	1	1.93
660	2	1	2	18	14000	4	1	2	1	1	2	1	2	2	2	1	1	2	2	1	2	1	2	13	20	4	1	2	3	1	2	1	2	2	0	0	2	2	0	0	3	4	149	45	100	101	67	2	2.66
661	2	1	2	19	16000	6	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	14	30	5	2	2	3	2	2	1	0	0	3	4	2	0	0	0	1	3	154	50	88	109	78	1	68.35
662	2	1	2	18	42000	6	2	2	1	2	2	2	1	2	2	2	2	2	1	2	1	2	1	13	30	5	1	2	2	2	2	2	0	1	0	1	3	0	0	0	0	0	153	41	96	120	80	2	2.06
663	2	1	2	18	15500	5	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	1	2	14	27	4	2	2	3	2	2	1	2	0	2	3	2	2	4	3	2	2	150	33	100	98	64	2	2.58
664	2	1	2	18	43000	5	2	2	1	2	2	2	2	2	1	2	2	2	2	1	2	1	2	13	30	3	2	2	2	2	2	3	0	0	2	1	0	1	0	1	0	0	150	30	98	84	68	1	1.95
665	2	1	1	16	3000	7	2	2	1	2	1	2	2	2	1	2	1	1	2	1	2	1	1	12	30	5	2	2	2	2	2	3	3	2	1	3	1	1	1	1	3	3	154	45	77	100	60	2	1.6
666	2	1	1	17	14000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	13	25	4	2	2	3	2	2	3	2	3	1	0	3	1	0	0	2	3	159	45	89	112	61	2	1.53
667	2	1	1	18	45000	7	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	4	2	2	2	2	2	2	2	2	1	1	2	2	1	0	1	3	152	61	86	100	62	1	5.58
668	2	1	1	17	5000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	1	2	2	2	14	30	5	2	2	3	2	2	1	2	2	2	1	0	2	1	1	1	1	155	35	104	112	60	2	0.98
669	2	1	1	17	10000	4	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	120	7	1	2	3	2	2	1	1	0	1	3	3	1	3	2	2	1	156	59	75	117	69	1	0.94
670	2	1	1	17	5000	3	2	2	2	2	1	2	2	1	2	2	1	2	2	2	2	1	2	10	32	2	2	2	3	2	2	3	2	2	2	0	2	3	0	0	2	2	142	41	80	112	68	1	3.31
671	2	1	1	16	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	1	2	1	1	2	4	0	0	2	3	158	43	80	115	72	2	1.99
672	2	1	1	16	5000	6	1	2	1	1	2	2	2	2	1	2	2	2	1	2	2	2	2	12	25	6	1	1	2	2	2	1	2	1	3	4	4	1	0	2	1	1	153	45	59	100	60	2	1.12
673	2	1	1	17	15000	6	1	2	1	1	2	2	2	2	2	1	2	2	1	1	1	1	1	11	60	3	2	1	1	2	2	1	3	4	3	1	1	3	2	2	4	2	157	48	98	110	70	1	2.81
674	2	1	1	17	10000	4	1	2	1	1	1	1	2	2	2	1	1	2	2	1	1	1	1	12	30	5	2	2	3	2	2	1	2	1	3	1	2	3	2	1	3	3	150	48	100	101	60	2	1.26
675	2	1	1	16	5000	2	2	2	2	1	2	2	2	1	2	2	1	1	2	1	1	1	2	13	28	7	1	2	3	2	2	1	2	0	3	0	0	4	2	3	4	4	153	42	88	110	60	2	1.27
676	2	1	1	16	11000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	5	2	2	2	2	2	1	1	0	0	1	0	0	0	0	0	1	147	38	95	101	65	2	2.51
677	2	1	1	16	12000	8	1	1	2	1	1	2	1	2	1	2	2	1	2	2	2	2	1	13	28	3	2	2	1	2	2	1	2	1	2	3	2	3	1	2	2	1	149	42	81	98	66	1	9.28
678	2	1	1	17	9000	5	2	2	2	1	2	2	2	1	2	1	2	1	2	2	2	2	1	10	60	9	1	2	3	2	2	3	4	2	2	0	1	4	0	0	4	4	156	53	85	116	71	2	2.86
679	2	1	1	16	15000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	25	5	2	2	3	3	2	3	2	4	3	4	3	2	0	3	3	3	158	39	81	90	60	2	2.83
680	2	1	1	17	27000	5	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	12	40	5	2	2	3	3	2	2	2	4	1	4	2	4	0	3	4	4	148	36	88	91	60	1	1.1
681	2	1	1	16	5000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	13	28	5	2	2	3	3	2	1	3	2	1	2	0	3	4	2	4	4	163	53	100	109	84	1	0.94
682	2	1	1	17	15000	2	2	2	1	2	2	2	2	2	1	2	1	2	1	2	2	1	2	13	25	5	2	2	2	2	2	3	2	0	1	0	1	0	0	0	1	0	155	38	90	90	84	1	14.02
683	2	1	1	16	6000	5	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	25	5	2	2	3	2	2	2	2	2	1	2	2	2	3	3	4	4	151	34	88	110	66	1	2.83
684	2	1	1	16	16000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	14	26	5	2	2	2	2	2	3	2	2	2	3	2	3	2	3	3	4	162	52	74	120	65	2	1.53
685	2	1	1	16	8000	4	2	2	2	1	2	2	2	2	1	1	2	1	1	1	1	1	2	14	45	5	2	2	3	2	2	3	2	1	3	2	1	1	2	1	4	4	166	47	90	118	70	1	2.64
686	2	1	1	17	5000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	15	37	5	2	2	2	2	2	2	0	0	0	0	0	1	0	0	0	0	156	40	90	99	60	2	3.81
687	2	1	1	16	5000	7	2	1	1	2	2	2	1	2	1	2	2	2	2	2	2	1	2	14	30	3	2	2	3	3	2	3	0	1	0	1	1	2	1	3	1	2	157	50	82	102	68	2	1.37
688	2	1	1	16	3000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	15	30	5	2	2	2	2	2	1	2	2	2	1	2	2	3	2	2	1	153	66	81	139	77	1	14.56
689	2	1	1	16	13000	6	2	2	2	2	2	2	2	2	1	2	2	1	1	2	2	1	2	13	30	3	2	2	3	2	2	1	1	0	2	1	3	1	4	2	1	3	160	38	102	131	100	2	0.71
690	2	1	1	17	11000	4	2	2	1	2	2	2	2	2	1	2	2	2	2	1	2	2	2	15	30	5	2	2	2	2	2	1	1	0	1	2	0	1	0	0	1	0	155	41	104	116	84	2	4.1
691	2	1	1	17	17000	5	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	12	22	5	2	2	3	2	2	1	3	1	3	3	0	3	0	3	3	3	156	40	75	105	62	2	1.87
692	2	1	1	18	21000	6	1	2	1	2	2	1	2	2	1	1	2	2	2	2	2	1	2	1	11	22	5	2	2	3	3	2	1	0	0	2	2	0	2	3	0	2	2	156	37	78	121	68	1	8.4
693	2	1	1	17	10000	3	1	1	2	2	1	1	2	1	2	2	1	1	1	2	1	2	1	13	35	3	2	2	3	3	2	1	0	0	1	3	2	1	0	1	0	1	148	45	82	102	65	2	2.07
694	2	1	1	17	15000	5	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	12	28	5	2	2	2	2	2	1	0	0	1	3	4	3	2	0	0	0	155	48	95	120	80	1	1.75
695	2	1	1	16	8000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	28	4	2	2	2	2	2	1	1	2	0	0	1	0	0	1	0	1	150	47	100	121	86	1	3.43
696	2	1	1	17	30500	5	2	2	2	2	2	2	2	1	1	2	1	2	2	2	2	2	2	12	28	5	2	2	3	3	2	2	2	2	1	1	0	2	4	0	3	4	151	43	78	100	64	1	0.27
697	2	1	1	17	9000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	13	30	7	1	2	3	2	2	2	2	0	0	0	0	2	0	0	0	1	158	43	73	94	61	1	7.35
698	2	1	1	16	5000	7	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	11	30	4	2	2	3	2	2	1	2	2	2	0	0	4	1	2	1	0	157	50	83	124	70	1	1.07
699	2	1	1	16	10000	6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	13	60	6	1	2	2	2	2	1	0	1	2	3	2	0	2	3	1	2	162	59	78	142	80	2	1.98
700	2	1	1	17	26000	6	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	2	2	13	25	5	2	1	2	2	2	1	1	0	1	2	1	2	1	0	1	1	163	36	108	106	70	1	2.74
701	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	2	2	2	2	2	1	1	1	2	0	1	0	2	0	0	0	162	67	86	130	90	2	1.56

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
702	2	1	1	17	7000	4	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	2	2	14	28	4	2	2	2	2	2	1	1	0	0	2	0	0	1	2	0	1	154	40	91	104	66	2	1.88
703	2	1	1	17	4000	5	2	1	2	1	2	2	2	2	1	1	2	2	2	2	2	2	1	15	30	7	1	1	2	3	2	1	0	2	3	2	1	4	2	1	1	2	162	75	79	119	67	2	2.56
704	2	1	1	15	6000	4	2	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	1	12	28	5	2	2	3	3	2	3	1	2	1	0	2	3	0	0	1	2	163	54	84	116	84	2	1.63
705	2	1	1	17	7000	5	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	12	30	5	2	2	3	2	2	1	2	3	2	3	4	2	3	2	1	2	153	61	84	120	80	2	4.05
706	2	1	1	16	8000	5	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	28	5	2	2	2	1	2	1	2	2	1	1	2	1	2	1	0	0	156	43	84	115	80	2	2.18
707	2	1	1	16	28000	5	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	2	2	14	40	3	2	2	2	2	2	2	1	0	4	1	0	0	0	1	1	3	150	42	88	100	70	1	0.88
708	2	1	1	16	5000	5	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	25	5	2	2	3	2	2	2	2	2	1	2	2	2	3	3	4	4	149	56	80	95	60	2	1.3
709	2	1	1	17	15000	5	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	1	12	35	5	1	2	3	2	2	1	2	0	1	3	0	4	0	0	2	4	165	61	88	106	60	1	4.25
710	2	1	1	17	8000	3	1	2	1	2	2	2	2	2	2	1	2	2	1	1	1	1	2	13	27	7	1	2	3	2	2	2	3	1	1	3	2	2	2	0	2	4	159	40	82	104	64	1	0.9
711	2	1	1	15	9000	5	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	11	30	5	2	1	2	2	2	2	2	0	3	2	2	1	2	0	1	2	143	41	75	105	54	1	0.62
712	2	1	1	17	8000	3	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	13	30	5	2	2	2	2	2	1	0	1	0	1	1	0	0	1	0	1	145	37	86	124	64	1	14.86
713	2	1	1	16	6000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	120	10	1	2	2	2	2	1	0	1	2	1	0	2	1	1	2	2	166	44	91	114	61	1	1.57
714	2	1	1	17	17000	6	2	2	1	2	1	2	2	2	2	1	2	1	1	1	2	1	2	10	25	5	2	2	3	2	2	3	2	3	2	2	4	4	3	2	4	3	153	43	84	102	94	2	1.37
715	2	1	1	16	8000	4	1	1	2	2	2	2	2	2	2	1	1	2	2	2	1	1	2	13	28	3	2	2	3	2	2	1	2	0	3	3	0	0	3	4	0	4	156	57	88	124	67	2	2.25
716	2	1	1	16	9000	4	1	1	1	1	1	1	1	2	1	2	1	2	2	1	2	1	1	12	29	5	2	2	3	2	2	1	2	2	2	3	1	1	2	1	2	2	151	51	68	110	74	2	3.44
717	2	1	1	16	6000	5	2	2	2	1	1	2	2	2	2	2	2	1	2	2	2	2	2	13	32	4	2	2	3	2	2	1	2	0	1	3	2	4	2	3	4	4	154	53	68	100	60	2	2.16
718	2	1	1	18	7500	5	2	2	2	2	1	2	2	2	2	2	2	1	2	2	2	1	2	13	30	5	1	2	3	2	2	1	1	0	0	2	0	1	1	0	0	0	156	63	90	115	72	1	2.04
719	2	1	1	16	7000	5	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	15	32	6	1	2	1	2	2	1	1	2	1	1	2	2	1	1	2	3	146	37	102	112	62	2	2.59
720	2	1	1	17	23000	4	2	2	2	2	1	2	2	2	1	1	1	1	1	1	1	1	1	12	30	5	2	2	2	2	2	1	3	1	3	1	2	4	1	1	1	3	157	35	87	112	72	2	0.97
721	2	1	1	17	7000	4	1	1	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	12	90	10	1	2	3	3	2	1	1	0	0	1	1	1	0	0	0	0	153	55	80	126	80	2	1.81
722	2	1	1	16	10000	4	2	2	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	14	20	7	1	2	3	3	2	1	0	2	1	0	1	4	2	1	2	2	150	42	69	85	60	2	3.97
723	2	1	1	17	10000	4	1	1	2	2	1	2	2	1	2	2	2	1	2	2	2	2	1	14	90	3	2	2	3	2	2	1	1	0	0	0	0	0	1	2	0	0	163	66	63	127	69	2	1.78
724	2	1	1	16	6600	5	2	1	2	2	2	2	2	1	2	2	2	2	2	1	2	1	2	13	30	5	2	2	3	2	2	1	0	1	1	2	2	2	4	0	0	2	150	49	95	100	80	2	2.63
725	2	1	1	16	7500	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	13	32	5	2	2	1	2	2	1	2	1	1	2	2	2	1	2	2	2	158	57	84	90	60	1	2.44
726	2	1	1	16	12000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	6	1	2	3	2	2	1	2	2	1	3	2	3	1	2	1	2	159	48	68	114	90	2	1.37
727	2	1	1	16	6000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	40	7	1	1	3	2	2	1	1	1	1	2	1	1	1	3	1	1	160	39	109	110	85	1	1.97
728	2	1	1	16	10000	4	1	1	2	2	1	2	2	2	2	1	2	2	2	1	1	1	1	13	120	6	1	2	2	2	2	1	4	4	4	0	0	2	3	2	4	4	161	56	94	110	60	1	2.99
729	2	1	1	17	15000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	2	2	2	2	2	1	1	0	1	2	3	0	1	0	0	1	151	50	60	121	86	2	1.14
730	2	1	1	16	8000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	11	30	6	1	2	3	3	2	3	2	4	2	4	3	2	0	3	3	3	155	53	93	102	71	1	2.73
731	2	1	1	16	11000	5	1	2	2	1	2	2	2	2	2	2	2	2	2	2	1	1	2	12	30	5	2	2	3	3	2	1	0	0	0	0	0	0	2	3	0	2	4	151	40	69	100	64	2	1.59
732	2	1	1	16	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	12	28	5	2	2	3	2	2	1	2	0	0	1	2	2	2	0	0	0	163	50	80	112	70	2	1.62
733	2	1	1	17	22000	4	2	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	14	30	5	2	2	3	3	2	2	2	1	0	3	4	2	1	3	4	2	161	50	82	120	90	2	2.62
734	2	1	1	17	5000	6	2	2	1	2	2	2	2	2	2	2	1	2	1	2	2	2	2	14	60	6	1	2	3	2	2	3	2	4	3	3	2	1	2	0	4	2	160	39	88	100	64	1	3.59
735	2	1	1	16	3800	4	1	1	2	2	1	2	2	2	1	2	1	1	2	2	2	2	2	12	30	5	2	2	2	2	2	1	2	0	2	1	2	3	2	1	2	3	167	70	92	120	71	2	4.07
736	2	1	1	16	50000	5	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	666	666	666	666	2	1	2	2	1	1	1	0	3	4	0	2	4	0	0	158	59	81	117	71	1	1.41
737	2	1	1	16	25000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	12	30	5	2	2	2	2	2	1	2	1	1	2	1	0	2	1	1	3	154	45	92	124	78	2	6.58
738	2	1	1	17	15000	5	2	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2	2	12	30	4	1	2	3	2	2	1	2	3	0	3	4	4	0	2	3	4	144	36	91	107	72	1	3.34
739	2	1	1	17	12500	4	1	2	1	2	2	2	2	2	1	2	2	2	1	2	2	2	2	12	60	5	2	2	1	2	2	3	0	0	0	2	0	0	0	0	1	0	165	43	85	100	65	2	2.06
740	2	1	1	17	17000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	35	5	2	2	2	2	2	1	0	2	0	0	2	0	0	2	0	0	149	46	105	115	80	1	1.98
741	2	1	1	16	24000	5	1	2	1	1	1	2	1	2	1	1	2	2	2	2	2	1	1	2	11	25	5	2	2	2	2	2	2	2	0	4	4	3	1	4	4	4	0	161	49	94	110	64	2	1.97
742	2	1	1	17	1000	2	1	1	2	2	1	2	2	2	1	1	2	2	2	2	1	1	1	2	13	30	3	2	2	2	2	2	2	2	3	2	2	2	3	2	3	3	149	47	59	90	60	2	2.27
743	2	1	1	16	4000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	4	2	2	2	2	2	1	0	1	0	0	1	2	1	0	1	0	155	33	114	114	68	2	0.83
744	2	1	1	17	6000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	2	12	31	4	2	2	3	3	2	1	3	4	2	3	1	2	3	1	2	3	152	38	98	111	70	1	4.62
745	2	1	1	17	5000	5	1	1	2	2	2	2	1	2	2	2	2	2	2	2	1	1	1	16	28	5	2	2	3	2	2	2	3	1	2	4	0	4	2	3	0	4	151	36	84	116	68	2	2.57
746	2	1	1	16	12000	6	2	2	2	2	1	2	2	1	1	2	1	2	2	1	2	2	2	15	25	5	2	2	2	2	2	3	0	0	1	2	3	4	0	1	3	2	158	54	103	131	80	2	2.37
747	2	1	1	17	14000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	30	5	2	2	3	2	2	1	2	3	4	3	0	1	2	3	1	0	151	40	83	104	64	2	2.32
748	2	1	1	17	9000	5	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	13	60	5	1	2	3	2	2	3	0	0	0	1	0	2	0	0	0	0	155	45	64	100	61	2	2.05
749	2	1	1	16	13000	9	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	14	28	4	2	2	3	3	2	1	2	2	2	3	2	4	3	2	3	3	150	42	112	124	70	1	2.52
750	2	1	1	17	12000	5	2	2	1	2	2	2	2	2	2	1	2	2	1	2	2	1	2	13	30	7	1	2	3	2	2	1	2	1	2	1	0	2	2	1	2	2	163	43	100	104	60	1	2.57
751	2	1	1	17	8000	3	2	1	2	2	2	2	1	1	2	2	1	2	2	2	2	1	1	13	28	3	2	2	3	2	2	1	2	2	1	2	3	3	2	3	1	4	147	49	79	123	87	2	4.32
752	2	1	1	16	8000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	25	6	1	2	3	2	2	2	2	2	1	2	2	2	3	1	4	4	158	40	81	106	62	2	1.52
753	2	1	1	15	6000	5	2	2	1	2	1	2	2	2	2	2	2	2	2	1	2	2	1	14	28	7	1	2	1	2	2	1	2	2	1	2	0	1	0	0	1	0	155	39	109	110	80	2	2.89
754	2	1	1	17	17000	4	2	2	1	2	2	2	2	2	2	1	2	2	2	2	2	1	2	13	30	5	2	2	3	3	2	1	2	3	3	4	3	1	2	3	2	3	144	36	96	107	73	2	3.29
755	2	1	1	15	8000	5	2	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	1	14	30	5	2	2	3	3	2	3	1	2	1	0	2	3	0	0	1	2	159	41	94	110	74	2	1.56

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
756	2	1	1	16	30000	4	2	1	2	2	1	1	1	2	1	2	1	2	1	2	1	2	1	12	20	8	1	2	2	1	1	1	0	4	1	0	3	4	3	3	4	4	148	55	77	114	66	2	2.16
757	2	1	1	17	18000	6	2	2	1	2	1	2	2	2	2	2	2	2	2	1	2	2	2	14	30	3	2	2	3	3	2	2	1	0	3	2	0	1	3	2	2	3	160	40	92	118	63	2	1.73
758	2	1	1	17	8000	5	2	2	2	2	2	2	2	1	2	2	2	1	2	2	2	1	16	35	6	1	2	2	2	2	1	2	2	2	2	3	3	2	2	2	3	152	35	97	105	70	2	1.64
759	2	1	1	17	9500	5	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	13	28	1	2	2	3	3	2	2	2	2	2	0	1	2	2	0	1	2	149	36	91	101	66	1	0.84
760	2	1	1	16	16000	4	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	13	43	5	2	2	2	2	2	3	3	2	3	2	2	1	2	1	2	3	152	42	84	111	66	2	0.9
761	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	12	42	5	2	1	2	2	2	3	3	2	3	2	4	0	4	2	0	3	4	163	37	101	95	71	2	0.03
762	2	1	1	16	10000	5	2	2	2	2	1	2	2	1	1	2	2	2	2	1	2	2	2	12	26	5	2	2	2	2	2	1	0	2	0	2	0	3	0	1	0	2	154	58	104	130	85	2	2.04
763	2	1	1	16	6000	6	2	2	2	2	2	2	2	1	2	1	2	2	2	2	1	2	1	14	37	6	1	1	2	2	2	1	2	2	2	2	1	2	1	2	2	3	163	50	104	110	84	1	3.44
764	2	1	1	18	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	40	2	2	2	2	2	2	1	2	0	0	1	0	2	1	0	1	3	159	46	94	103	54	2	1.71
765	2	1	1	16	14000	5	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	60	5	2	2	1	2	2	1	0	0	1	0	1	1	0	0	0	0	159	46	80	107	66	2	1.13
766	2	1	1	17	11000	6	2	1	1	1	1	2	2	2	2	2	1	2	2	2	2	2	2	12	30	7	1	2	2	2	2	1	2	0	1	3	3	4	0	0	1	4	155	45	98	110	70	1	3
767	2	1	1	17	36000	5	2	2	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	5	2	2	2	2	2	1	2	1	2	4	3	4	3	4	2	1	163	62	106	122	78	2	1.69
768	2	1	1	16	12000	4	2	2	2	2	2	2	2	2	2	1	1	1	2	2	1	1	1	12	28	7	1	1	3	2	2	1	3	1	1	2	3	3	1	2	0	2	146	49	75	124	60	2	5.87
769	2	1	1	17	2000	7	1	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	11	28	5	2	2	3	2	2	1	1	1	2	2	1	3	1	1	2	4	148	41	98	124	80	2	4.05
770	2	1	1	17	4000	7	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	13	30	5	2	2	2	2	2	1	0	2	0	0	2	0	0	2	0	0	157	49	84	110	70	2	2.19
771	2	1	1	17	14000	9	1	2	1	1	2	2	2	1	2	2	2	1	2	2	2	2	1	14	120	5	1	1	2	2	2	1	1	1	1	1	2	1	1	1	1	1	144	35	64	114	74	2	2.12
772	2	1	1	17	5000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	12	30	5	2	1	3	2	2	1	2	0	0	1	2	3	0	3	2	2	152	54	74	128	80	1	6.38
773	2	1	1	16	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	28	4	2	2	2	2	2	1	1	2	1	3	2	0	2	4	2	0	152	48	73	130	82	2	1.6
774	2	1	1	17	7000	4	2	2	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	12	25	5	2	2	2	2	2	1	0	1	2	3	2	2	2	1	1	1	159	44	90	125	75	1	2.57
775	2	1	1	16	20000	5	1	2	2	1	2	2	2	2	1	2	1	1	2	2	2	2	2	13	30	5	2	2	2	2	2	1	2	0	2	0	4	4	1	0	0	0	159	48	110	140	97	2	0.9
776	2	1	1	16	5000	5	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	3	3	2	3	1	0	2	2	1	1	1	1	1	0	164	44	80	98	65	2	1.24
777	2	1	1	17	6000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	13	30	4	2	2	2	2	2	3	1	0	2	3	1	2	3	3	2	0	153	33	74	91	61	2	1.61
778	2	1	1	16	8000	3	1	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	13	30	7	1	2	2	2	2	3	4	4	4	0	1	4	0	0	4	2	159	46	90	101	62	2	1.63
779	2	1	1	17	8000	6	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	28	3	2	2	2	2	2	2	2	0	0	3	3	1	0	3	2	0	163	73	102	110	84	2	5.45
780	2	1	1	17	8000	4	1	2	2	2	1	2	1	1	2	2	1	2	2	2	1	1	2	12	30	6	1	2	1	3	2	2	2	1	2	0	1	0	2	2	3	4	150	38	114	103	71	2	2.91
781	2	1	1	17	5000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	0	0	1	0	0	0	1	0	0	0	158	50	91	118	65	1	1.87
782	2	1	1	17	7000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	5	1	2	2	2	2	1	2	0	0	1	0	1	1	0	1	0	160	37	89	108	61	1	2.8
783	2	1	1	17	11000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	1	2	13	30	4	2	2	2	2	2	1	2	3	1	2	1	4	3	3	0	4	160	50	102	112	92	2	2.29
784	1	0	1	17	20000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	28	5	2	2	3	2	2	1	0	0	1	3	3	2	0	0	0	0	152	40	84	120	80	2	2.09
785	1	0	1	17	9000	4	1	2	1	1	1	1	1	2	2	1	1	2	2	1	1	1	2	12	28	5	2	1	3	2	2	3	3	4	2	2	2	3	2	3	4	4	157	49	81	120	70	2	0.36
786	1	0	1	17	70000	5	1	1	2	1	1	2	2	2	2	1	1	2	2	2	1	1	2	13	30	3	2	2	1	2	2	1	0	1	4	2	0	4	2	3	2	4	153	54	64	110	77	2	1.86
787	1	0	1	16	52000	3	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	1	2	13	30	5	2	2	2	2	2	1	1	0	0	0	0	1	1	0	0	0	156	56	92	107	77	2	3.9
788	1	0	1	17	8000	4	2	1	1	2	2	2	2	1	1	2	2	2	2	2	2	2	2	15	30	5	2	2	2	2	2	1	0	0	0	0	0	0	0	0	0	1	160	41	92	110	74	2	2.65
789	1	0	1	16	12000	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	3	2	2	3	2	2	1	2	2	1	2	1	2	2	2	2	2	153	47	76	106	77	2	1.94
790	1	0	1	17	15000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	2	1	13	30	5	1	2	3	1	1	1	1	0	1	2	1	3	0	1	0	0	146	44	64	116	80	2	0.93
791	1	0	1	17	10000	4	2	1	1	2	1	2	2	2	1	2	1	2	2	2	1	2	2	12	25	3	2	2	1	2	2	1	1	2	1	0	0	1	0	1	2	2	158	62	80	115	67	2	2.63
792	1	0	1	16	6000	5	1	1	1	2	1	2	2	2	2	2	1	1	2	2	1	1	2	12	30	5	1	2	3	1	1	1	1	3	1	2	0	4	4	4	4	4	163	54	101	120	90	2	2.33
793	1	0	1	16	14000	4	2	1	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	10	60	7	1	1	2	2	2	1	0	1	1	1	1	2	2	1	1	0	152	74	118	106	73	2	1.66
794	1	0	1	16	24000	4	2	2	2	1	2	2	2	2	2	1	1	2	1	2	1	2	1	13	30	3	2	2	3	2	2	1	1	2	1	4	2	3	1	3	4	4	150	39	61	95	81	2	2.13
795	1	0	1	17	10000	7	2	2	2	2	2	2	2	2	2	2	1	1	2	1	2	2	2	13	30	4	2	2	3	2	2	3	2	2	2	0	4	4	3	1	4	4	160	63	91	129	68	2	1.5
796	1	0	1	17	7500	4	1	2	2	2	1	2	2	2	2	2	1	2	2	1	1	1	2	13	31	5	2	2	1	2	2	1	2	1	3	2	4	3	2	3	4	4	150	50	81	112	80	1	20.56
797	1	0	1	16	5500	4	1	2	2	2	1	2	1	2	2	2	2	1	2	1	1	1	1	12	30	5	1	2	3	2	2	1	2	3	2	1	0	1	2	3	4	2	158	46	82	112	66	1	1.27
798	1	0	1	17	4000	5	1	2	2	1	1	2	2	2	2	1	1	2	1	1	1	2	2	14	30	5	1	2	3	2	2	3	2	2	3	1	3	4	1	4	2	4	153	47	79	110	66	2	1.79
799	1	0	1	17	6000	4	2	2	1	2	1	2	2	2	1	2	1	2	1	1	1	1	2	11	30	5	2	2	2	2	2	3	3	2	1	3	4	4	2	3	0	4	152	42	83	110	64	2	1.28
800	1	0	1	17	9000	5	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	15	30	5	2	2	3	2	2	1	0	0	0	2	3	4	0	4	0	0	162	40	73	84	66	1	5.48
801	1	0	1	17	13000	4	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	13	30	5	2	2	2	2	2	1	2	2	0	2	0	0	0	0	2	0	153	52	74	119	67	2	1.32
802	1	0	1	16	4000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	1	1	12	30	6	1	2	3	2	2	3	2	1	2	3	2	4	3	1	3	0	156	45	68	115	92	2	2.57
803	1	0	1	15	14000	6	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	1	2	12	30	5	2	2	3	2	2	3	1	1	0	2	1	2	1	1	2	2	158	43	70	118	90	2	1.88
804	1	0	1	16	15660	4	1	2	1	2	2	2	2	2	2	2	2	2	2	1	2	1	1	12	30	5	1	1	2	2	2	2	4	3	2	2	0	2	0	0	0	4	150	41	75	121	85	2	2.14
805	1	0	1	16	60000	5	1	2	2	2	2	1	2	1	1	2	1	2	1	2	1	2	2	15	20	4	2	2	3	2	2	1	1	2	0	2	3	4	0	1	2	3	153	42	95	136	77	2	1.22
806	1	0	1	16	6000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1	11	30	5	2	2	1	1	1	1	1	1	1	4	4	1	1	1	1	1	150	48	58	107	91	2	3.22
807	1	0	1	16	6000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	12	30	4	2	2	3	2	2	1	1	2	1	1	2	1	2	0	0	2	149	44	63	104	91	2	1.26
808	1	0	1	16	3500	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	3	2	2	2	2	2	1	0	0	0	1	1	1	1	0	0	0	144	39	79	105	73	2	1.19
809	1	0	1	16	10000	3	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	30	4	2	2	2	2	2	3	2	3	2	3	1	2	3	1	4	3	154	41	108	125	74	2	1.47

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
810	1	0	1	16	10000	6	2	2	1	2	2	2	2	2	1	2	2	2	2	1	2	2	1	13	30	4	2	2	2	2	2	2	3	2	3	2	4	2	4	4	4	4	156	36	95	85	54	1	2.55
811	1	0	1	16	27000	6	1	2	1	2	2	1	2	2	2	1	1	2	2	1	2	1	1	14	30	4	1	2	3	2	2	1	2	2	4	0	1	4	3	0	4	3	144	43	91	112	72	2	1.28
812	1	0	1	15	22000	5	1	2	1	2	2	2	2	2	1	2	1	2	2	1	1	1	1	13	30	5	1	2	3	2	2	1	2	1	2	0	3	1	2	3	1	3	163	47	72	113	70	2	0.77
813	1	0	1	16	4500	5	1	2	2	2	2	2	2	2	2	1	2	2	2	1	1	1	2	15	120	3	1	2	3	2	2	1	1	1	0	2	3	4	0	1	2	3	143	34	83	116	66	2	1.87
814	1	0	1	16	26000	5	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	12	555	2	2	1	2	2	2	1	0	0	0	0	2	4	4	1	2	0	152	36	82	96	61	1	5.7
815	1	0	1	15	18000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	5	1	1	2	2	2	1	2	0	1	2	0	2	2	0	2	2	165	51	95	110	65	2	0.95
816	1	0	1	17	5000	3	2	2	2	2	2	2	2	2	1	2	2	1	1	1	1	1	1	15	60	9	1	1	3	2	2	1	2	0	1	4	0	2	1	1	4	2	152	36	78	110	80	1	0.82
817	1	0	1	16	10000	4	2	2	1	1	2	2	1	2	1	2	2	2	1	2	2	2	2	15	30	4	2	2	2	2	2	1	1	0	1	2	2	1	0	1	1	1	156	34	74	100	80	2	1.51
818	1	0	1	17	10000	4	2	2	2	2	1	2	2	2	2	1	1	2	2	2	2	2	1	14	31	5	2	2	3	2	2	1	2	1	2	2	3	2	2	2	2	2	152	44	72	118	74	1	0.71
819	1	0	1	16	5000	6	1	2	2	2	1	2	2	2	2	1	1	2	2	2	1	1	2	12	30	5	2	2	3	3	2	1	2	2	2	3	3	3	2	2	3	3	158	43	80	110	70	2	0.84
820	1	0	1	16	13000	5	1	1	2	2	1	2	2	2	2	2	1	2	2	2	1	1	1	13	60	5	2	2	3	3	2	1	4	1	3	0	4	2	0	2	3	4	154	56	80	120	77	1	4.82
821	1	0	1	16	8000	3	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	13	60	3	2	2	3	2	2	1	0	1	0	2	0	2	1	2	0	1	156	46	97	133	70	2	3.02
822	1	0	1	17	9000	4	2	2	2	1	2	2	2	2	2	1	1	2	1	1	1	1	2	13	31	3	2	2	1	2	2	1	2	1	2	1	3	4	1	0	4	4	154	38	82	111	76	2	1.85
823	1	0	1	17	8000	4	1	2	2	2	1	2	2	2	2	1	1	1	2	1	2	1	1	13	31	6	1	2	3	3	2	3	4	1	3	0	4	2	0	2	3	4	157	43	93	98	67	2	1.2
824	1	0	1	17	18500	6	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	12	31	5	2	2	3	3	2	1	1	1	1	1	1	1	1	1	1	2	157	45	76	140	80	2	1.41
825	1	0	1	16	13000	4	2	2	1	2	2	2	2	2	2	2	1	2	2	1	2	2	2	13	30	4	2	2	2	2	2	3	0	3	0	4	0	4	4	3	1	4	151	53	91	120	81	2	2.93
826	1	0	1	16	9000	4	1	2	1	2	1	2	2	1	1	1	1	2	1	1	1	2	2	12	60	8	1	2	3	2	2	3	0	2	4	0	3	2	0	0	4	3	155	51	80	127	78	1	0.88
827	1	0	1	16	9000	3	1	2	2	2	1	2	2	2	2	2	1	1	1	1	2	1	2	14	30	5	2	2	3	2	2	1	2	1	4	0	0	4	4	0	4	4	157	41	93	107	69	1	1.15
828	1	0	1	16	6000	4	1	2	2	2	1	2	2	1	1	1	1	1	1	2	1	1	1	15	30	4	1	2	3	2	2	1	4	2	4	0	4	2	4	4	3	4	156	46	73	133	54	2	1.18
829	1	0	1	16	8000	8	1	1	1	1	1	2	2	2	2	1	1	2	2	2	1	1	1	13	30	5	2	2	2	2	2	2	2	0	2	0	0	2	0	0	2	1	175	73	88	129	80	2	3.53
830	1	0	1	16	35000	5	1	2	2	2	1	2	2	2	2	2	1	2	2	2	1	1	2	13	30	5	2	2	2	2	2	1	2	1	3	0	1	2	1	1	3	2	158	48	72	121	53	2	1.48
831	1	0	1	16	6000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	1	1	13	30	3	2	2	3	3	2	1	3	2	3	4	2	1	3	1	2	3	159	44	81	115	60	2	1.34
832	1	0	1	16	15000	6	2	1	2	2	1	2	2	1	1	2	2	2	2	2	2	1	1	13	28	2	2	2	2	2	2	1	1	1	2	3	4	1	2	3	1	3	146	45	85	96	85	2	0.78
833	1	0	1	16	31000	5	2	2	2	2	1	1	2	2	2	2	1	2	2	1	2	1	1	13	30	7	1	2	3	2	2	2	1	0	1	0	1	1	1	0	0	1	158	65	84	127	72	1	2.16
834	1	0	1	16	9500	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	13	30	5	1	2	2	2	2	1	2	4	0	4	0	2	4	2	4	0	159	40	93	113	74	2	2.13
835	1	0	1	16	36000	5	1	2	2	1	2	2	2	2	2	1	1	1	2	2	1	1	1	11	31	3	2	2	2	2	2	3	1	0	4	1	4	2	1	0	3	3	159	59	75	115	76	2	1.24
836	1	0	1	16	12000	4	1	1	2	2	2	2	2	2	2	1	1	2	2	2	1	1	1	13	31	4	2	2	2	2	2	1	1	0	4	1	0	2	2	2	3	4	160	45	110	131	68	2	1.67
837	1	0	1	15	19000	5	2	2	2	2	2	2	2	2	1	2	2	1	1	2	2	2	2	14	55	12	1	1	2	2	2	2	1	2	1	3	1	2	3	2	3	3	160	40	91	96	68	1	0.63
838	1	0	1	16	10500	4	1	1	1	1	2	2	2	2	2	1	1	2	1	2	1	2	2	13	30	3	2	2	1	1	1	1	2	1	3	1	1	2	1	1	3	3	150	48	81	118	55	1	0.31
839	1	0	1	15	12000	4	1	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	1	13	31	4	2	2	3	2	2	1	2	2	4	0	1	4	3	2	0	3	150	45	108	102	60	2	2.91
840	1	0	1	16	5000	5	2	2	1	2	2	2	2	2	2	1	2	1	1	2	2	1	1	16	31	4	2	2	3	3	2	1	2	4	0	0	4	4	0	2	4	1	142	35	80	99	56	2	1.29
841	1	0	1	15	6000	5	2	2	1	1	2	2	2	2	2	1	2	2	1	2	2	1	1	15	30	3	2	2	2	2	2	3	2	4	3	4	4	0	2	3	3	2	154	37	83	84	55	2	3.32
842	1	0	1	15	6000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	60	3	2	2	3	2	2	1	1	2	0	2	3	4	0	1	2	3	148	36	83	92	62	2	1.42
843	1	0	1	15	6000	6	1	2	1	1	2	2	2	2	2	1	1	2	1	1	2	2	2	13	30	8	1	2	3	2	2	3	2	1	0	2	1	2	0	1	2	2	145	39	97	84	65	2	2.59
844	1	0	1	15	12000	4	1	2	2	2	2	2	1	1	2	2	2	2	2	1	1	1	1	12	30	3	2	1	1	2	2	2	3	1	2	2	1	1	2	1	1	1	145	45	82	114	71	2	2.77
845	1	0	1	15	13000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	5	1	1	2	2	2	1	2	0	1	2	0	2	2	0	2	2	144	40	65	104	61	1	0.58
846	1	0	1	15	5200	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	40	5	2	2	2	2	2	1	2	3	0	2	0	3	4	0	0	2	148	36	73	95	62	1	1.28
847	1	0	1	17	18000	4	2	2	2	2	2	2	2	2	1	1	2	1	2	1	1	2	1	15	60	9	1	1	3	2	2	1	2	0	3	4	0	2	3	0	4	2	152	36	103	90	60	2	1.05
848	1	0	1	16	35000	5	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	15	30	10	1	1	2	1	1	1	1	0	0	1	0	1	2	0	1	2	150	38	77	100	70	2	4.1
849	1	0	1	17	10000	4	1	2	2	2	2	2	2	1	1	1	1	1	2	1	1	1	2	14	30	5	2	2	3	3	2	1	2	2	3	2	3	3	2	2	0	3	149	41	78	120	70	2	2.14
850	1	0	1	17	11400	4	1	2	1	2	2	2	2	2	2	1	2	2	1	1	1	2	2	13	30	4	2	2	1	2	2	1	2	1	2	2	3	4	0	0	1	2	150	42	110	120	80	2	1.32
851	1	0	1	16	12000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	28	5	2	2	3	2	2	1	1	0	1	3	4	3	2	3	2	0	149	37	93	100	70	2	3.96
852	1	0	1	17	5000	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	15	35	7	1	2	3	2	2	1	1	0	1	2	0	2	0	1	2	1	164	39	86	110	72	1	7.24
853	1	0	1	17	9500	4	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	1	2	14	20	5	2	1	2	2	2	1	1	1	3	1	0	2	2	3	3	4	158	38	108	87	67	2	1.48
854	1	0	1	16	11000	4	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	4	2	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	147	38	73	95	59	2	1.34
855	1	0	1	16	5000	4	1	1	2	2	1	2	2	2	2	1	1	2	2	2	1	1	2	13	60	4	2	2	2	2	2	1	2	2	2	3	4	4	2	1	2	4	155	41	83	121	88	2	3
856	1	0	1	17	4000	4	1	2	2	1	2	2	2	2	2	2	1	2	2	1	2	1	1	14	30	4	2	2	1	2	2	3	0	0	0	0	0	2	0	0	0	2	152	35	91	103	61	2	1.79
857	1	0	1	16	11500	4	1	2	2	1	2	2	2	2	2	2	2	2	2	1	2	2	2	15	30	5	1	2	3	2	2	2	0	1	0	0	0	1	0	0	0	2	152	38	112	122	67	2	1.43
858	1	0	1	17	11000	5	2	2	1	2	2	2	2	2	1	2	2	2	2	1	1	1	1	14	31	4	2	2	2	2	2	1	2	0	3	0	0	4	0	1	1	0	154	42	100	86	73	2	0.79
859	1	0	1	16	11000	5	2	1	1	2	1	2	1	2	2	1	2	2	2	2	2	1	2	12	31	4	1	2	3	3	2	1	2	1	3	0	0	1	4	1	2	4	155	49	81	118	74	2	1.4
860	1	0	1	16	9000	5	1	2	1	1	1	2	2	2	2	1	1	2	1	2	1	1	1	14	30	3	2	2	2	2	2	1	2	2	3	2	4	3	2	2	3	2	155	41	104	84	67	2	0.92
861	1	0	1	17	13500	5	1	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	1	14	30	5	1	2	3	2	2	1	2	2	1	3	3	1	2	1	3	4	153	39	94	114	73	2	1.91
862	1	0	1	16	6000	4	2	2	1	2	2	2	2	2	2	2	1	2	1	2	2	1	2	13	60	5	2	2	2	2	2	1	1	1	2	1	2	1	1	2	2	2	157	43	99	124	60	2	4.18
863	1	0	1	17	7200	4	1	2	2	1	2	2	2	2	2	2	2	2	2	1	2	2	2	12	27	5	2	2	1	2	2	1	0	4	2	1	0	1	0	0	1	2	150	39	132	127	70	2	2.1

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
864	1	0	1	15	40000	5	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	12	30	4	2	2	2	2	2	1	0	0	2	3	0	2	0	2	0	1	148	35	87	105	81	2	1.44
865	1	0	1	16	7200	5	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	5	2	1	3	2	2	1	1	0	1	4	4	1	1	3	0	1	150	37	82	106	80	2	3.66
866	1	0	1	16	5000	4	2	2	2	2	2	2	2	2	1	2	1	2	2	1	2	1	1	13	31	4	2	2	2	2	2	1	2	1	1	1	0	2	2	0	0	1	158	49	64	118	84	2	1.11
867	1	0	1	16	11000	3	1	2	1	1	1	2	2	1	2	1	1	2	1	1	1	1	2	12	30	3	1	1	3	3	2	1	2	2	3	1	4	0	4	3	2	4	157	43	92	96	58	2	3.03
868	1	0	1	16	5000	4	2	1	1	1	2	1	2	2	2	2	1	2	2	2	2	1	2	13	30	5	1	2	3	2	2	1	1	1	4	4	0	0	2	2	3	0	161	41	64	111	65	2	1.54
869	1	0	1	16	5200	4	1	2	2	1	1	2	2	2	2	2	2	2	2	1	1	2	2	13	28	3	2	2	1	2	2	1	2	2	4	4	0	2	4	0	4	0	163	49	78	107	57	2	1.55
870	1	0	1	15	5000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	12	30	5	2	2	2	2	2	1	0	0	0	2	0	2	0	1	0	0	148	46	73	101	94	1	8.33
871	1	0	1	16	4000	5	1	2	1	2	1	2	2	2	2	2	1	2	2	2	1	1	2	12	32	4	1	1	3	2	2	1	2	0	1	1	0	2	0	0	2	2	148	47	78	104	69	2	0.83
872	1	0	1	15	6000	4	2	2	1	2	2	2	2	2	2	2	1	1	2	1	2	1	1	14	30	3	2	2	2	2	2	1	4	4	1	3	2	4	3	4	4	4	151	41	92	99	62	1	0.01
873	1	0	1	15	10000	4	2	2	1	1	2	2	2	2	1	2	1	1	1	2	1	2	2	15	20	5	2	2	2	2	2	1	3	2	0	0	0	3	4	2	3	3	149	36	85	97	62	1	7.54
874	1	0	1	16	22000	5	2	2	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	12	60	4	2	1	1	2	2	1	3	1	0	1	1	0	1	0	1	2	156	46	80	132	64	2	2.7
875	1	0	1	16	2000	6	2	2	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	13	30	5	2	2	3	2	2	1	1	2	1	4	4	1	1	0	1	2	152	48	124	98	60	2	2.21
876	1	0	1	16	14500	4	1	2	2	2	2	2	1	2	2	2	2	1	2	1	2	1	1	14	60	5	2	2	3	2	2	1	1	2	0	2	3	4	0	1	2	2	152	40	80	112	71	2	1.96
877	1	0	1	15	10000	4	2	2	2	2	1	2	2	2	2	2	2	2	2	1	2	2	2	14	30	6	1	2	2	2	2	2	1	0	0	0	0	0	0	1	0	0	149	35	85	96	76	1	4.78
878	1	0	1	16	10000	4	1	1	1	2	2	2	2	2	1	2	1	2	2	1	2	2	2	12	30	4	2	2	3	2	2	3	2	0	3	0	1	3	2	0	1	2	152	43	70	94	58	2	1.52
879	1	0	1	17	6500	5	2	2	2	1	2	2	2	2	2	2	1	2	1	1	1	1	1	14	30	5	2	2	2	2	2	1	1	1	2	2	1	2	1	1	2	4	169	58	90	115	73	2	1
880	1	0	1	16	9000	5	2	2	1	2	2	1	2	2	1	1	2	2	2	1	1	1	1	14	28	5	2	2	2	2	2	1	4	4	4	2	4	4	4	3	3	4	152	44	86	116	76	2	0.82
881	1	0	1	16	36000	4	1	2	2	2	2	2	2	2	2	1	1	2	2	1	2	1	2	13	20	3	2	2	2	2	2	1	1	1	0	1	1	0	1	0	1	4	140	44	78	130	84	2	3.27
882	1	0	1	17	4000	3	2	2	2	2	2	2	2	1	1	2	2	2	2	2	1	1	2	14	30	4	2	2	3	2	2	1	2	1	2	3	2	4	1	1	2	1	156	39	73	122	77	2	2.65
883	1	0	1	17	7000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	2	1	14	27	7	1	2	3	2	2	2	0	0	2	2	1	3	0	1	0	0	153	44	87	85	69	1	3.35
884	1	0	1	16	11000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	1	1	13	28	5	2	2	1	1	1	1	1	2	3	1	0	0	0	1	1	1	157	50	72	114	73	2	1.41
885	1	0	1	19	15000	4	1	2	2	2	2	2	2	2	2	1	1	1	1	1	2	1	1	14	30	5	1	2	3	2	2	1	4	2	2	3	4	3	2	0	4	4	150	37	68	94	67	2	0.71
886	1	0	1	17	6000	4	2	2	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	15	31	3	2	2	2	2	2	1	0	1	0	0	1	1	0	0	1	1	142	37	63	91	54	2	2.21
887	1	0	1	17	6000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	31	5	2	2	3	2	2	1	1	2	0	1	2	0	0	1	1	0	151	38	84	95	57	2	1.78
888	1	0	1	17	5000	5	1	2	2	2	2	2	2	2	2	1	1	2	2	1	2	1	2	13	30	4	2	2	3	2	2	1	0	0	0	2	2	3	4	3	3	1	149	34	81	82	59	2	3.51
889	1	0	1	17	10000	4	1	2	2	2	2	2	2	2	1	1	1	2	1	1	2	1	2	13	60	5	2	1	3	1	1	1	2	0	2	3	3	0	1	2	1	2	148	41	104	104	82	2	2.3
890	1	0	1	17	24000	4	1	2	1	2	1	2	2	2	2	2	2	2	1	2	1	2	1	13	30	4	2	2	3	2	2	2	4	0	2	1	2	1	0	2	3	4	149	36	107	124	87	2	2.25
891	1	0	1	16	10000	3	2	1	1	2	2	2	2	2	1	2	2	2	2	1	1	1	1	15	41	3	2	2	3	3	2	3	4	4	1	3	0	1	1	3	4	4	156	55	60	152	82	2	1.13
892	1	0	1	16	43000	4	1	2	2	2	1	2	2	2	1	1	1	1	1	2	1	1	1	14	31	5	1	2	3	2	2	1	4	2	4	0	4	2	4	4	3	4	157	44	81	108	64	2	1.28
893	1	0	1	17	16000	6	2	2	2	2	1	2	2	2	2	2	2	2	1	1	1	1	2	14	30	3	2	2	2	2	2	2	2	1	2	2	4	3	2	2	3	2	146	47	85	130	68	2	1.17
894	1	0	1	15	35000	4	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	14	30	4	2	2	3	2	2	2	1	0	0	2	1	0	0	0	0	0	149	41	127	107	73	2	1.65
895	1	0	1	15	16500	5	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	13	28	4	2	2	1	2	2	1	1	0	0	4	4	1	2	2	0	0	149	41	107	92	59	2	2.53
896	1	0	1	16	13000	3	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	5	2	2	3	2	2	1	0	0	0	2	4	0	1	1	0	0	151	60	119	137	89	2	2.06
897	1	0	1	15	10000	8	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	4	2	2	2	2	2	1	1	0	1	0	0	0	0	0	1	1	154	41	93	117	69	2	3.26
898	1	0	1	16	5000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	13	30	3	2	2	2	2	2	1	1	0	1	2	3	1	3	2	0	1	157	46	98	93	80	2	1.6
899	1	0	1	16	3000	5	2	2	2	2	2	2	2	1	1	1	2	1	1	2	2	2	2	12	30	5	2	1	2	2	2	1	2	2	1	3	4	4	3	2	3	4	150	55	100	122	64	2	0.98
900	1	0	1	16	6000	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	1	2	2	2	2	1	1	2	3	1	4	4	2	4	3	4	146	48	83	123	72	2	1.76
901	1	0	1	15	5000	4	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	1	1	1	1	0	0	1	1	1	0	1	2	0	153	53	83	107	81	2	1.83
902	1	0	1	16	7000	4	1	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	12	30	5	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	145	43	92	117	63	2	1.06
903	1	0	1	16	6500	5	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	13	90	6	1	2	2	2	2	1	0	1	1	2	0	2	0	0	2	3	153	65	90	118	94	2	3.07
904	1	0	1	16	8000	3	1	2	2	2	2	2	2	2	1	2	1	2	2	2	2	1	2	12	30	4	2	2	2	2	2	1	2	0	2	1	0	2	0	1	3	2	152	40	106	105	77	2	1.18
905	1	0	1	15	10000	4	2	1	1	1	2	1	2	2	1	2	2	2	2	2	2	1	1	12	30	5	2	2	2	2	2	1	2	0	2	1	0	2	0	1	3	2	156	63	88	114	96	2	2.23
906	1	0	1	16	8000	6	1	1	2	1	2	1	1	1	2	1	1	2	2	2	2	1	1	13	30	5	2	2	3	2	2	1	2	4	0	1	2	1	2	3	4	2	158	52	107	102	73	2	1.06
907	1	0	1	16	8000	5	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	16	30	5	1	1	2	2	2	2	0	0	2	2	2	0	0	3	0	0	149	31	79	131	88	2	1.68
908	1	0	1	15	20000	5	2	2	1	1	1	2	2	2	2	2	2	2	1	2	2	1	1	14	30	4	2	2	2	2	2	1	2	0	1	1	1	1	0	1	1	2	162	46	83	110	88	2	1.51
909	2	1	1	15	10000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	4	2	2	2	2	2	3	0	0	0	1	0	2	0	1	0	2	154	42	68	110	60	2	1.98
910	2	1	1	16	8000	3	1	2	2	2	2	2	2	2	1	2	1	2	2	2	2	1	1	12	34	6	1	2	2	2	2	2	2	3	0	0	0	0	0	0	0	0	153	44	74	93	70	2	2.26
911	2	1	1	16	5000	5	1	2	1	1	2	2	2	2	1	2	2	2	2	2	2	1	1	13	30	3	2	2	2	2	2	3	0	0	0	0	0	1	1	0	0	0	153	45	86	100	70	2	0.85
912	2	1	1	16	7800	4	2	1	2	2	2	2	2	1	1	1	1	2	2	2	2	2	1	10	40	6	1	1	2	2	2	2	0	0	3	2	0	0	2	0	0	1	150	57	70	96	78	2	1.25
913	2	1	1	16	26000	5	2	2	1	2	2	2	2	1	1	2	2	2	2	2	2	2	2	13	30	5	2	2	1	2	2	1	1	0	2	4	2	4	3	0	2	2	169	50	100	130	80	2	3.97
914	2	1	1	15	3000	3	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	12	28	3	2	2	2	2	2	1	2	1	1	1	2	0	1	1	1	0	153	38	61	98	70	2	1.16
915	2	1	1	15	3000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	14	30	5	2	2	3	3	2	3	1	0	0	2	0	1	0	0	0	2	164	65	68	130	88	2	2.02
916	2	1	1	16	36000	6	1	1	2	1	1	2	1	2	2	1	2	1	2	2	2	2	2	14	30	5	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	164	74	62	130	60	2	0.34
917	2	1	1	16	7000	3	1	1	2	1	1	2	2	1	2	1	2	1	1	1	1	1	1	14	30	5	1	2	3	3	2	3	4	2	2	3	4	0	2	2	2	2	159	44	77	100	60	2	3.83

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
918	2	1	1	16	6000	5	1	2	2	2	1	2	2	2	1	1	1	2	2	1	2	1	2	12	30	5	2	2	2	2	2	1	0	0	4	2	2	2	1	0	2	4	160	44	90	110	70	2	0.71
919	2	1	1	16	2000	5	2	2	1	2	2	1	2	2	1	2	1	1	2	1	1	2	2	11	30	8	1	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	150	44	88	130	60	2	1.24
920	2	1	1	15	2000	5	2	1	2	2	2	2	2	2	2	2	1	2	1	1	2	1	2	13	28	5	2	2	2	2	2	1	0	1	1	3	2	4	2	2	1	2	159	44	108	120	60	2	1.68
921	2	1	1	15	6000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	14	30	4	2	2	3	2	2	3	0	0	0	1	2	0	2	1	0	1	150	39	93	113	70	2	1.05
922	2	1	1	16	8000	5	1	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	6	1	2	2	2	2	1	1	2	0	1	0	1	1	0	0	1	154	31	72	90	60	2	0.91
923	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	2	2	3	3	2	2	1	2	0	2	0	2	0	1	2	0	154	41	98	100	70	2	0.73
924	2	1	1	16	26000	6	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	1	13	30	4	2	1	2	2	2	1	2	1	3	4	2	1	3	4	2	1	155	48	90	120	60	2	1.91
925	2	1	1	15	6000	4	2	2	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	12	30	6	1	2	2	3	2	3	2	1	2	3	0	2	1	3	0	4	152	38	80	87	73	2	1.51
926	2	1	1	16	3000	4	1	2	1	2	2	2	2	2	1	1	1	1	2	1	1	2	2	13	30	5	1	1	3	2	2	1	0	1	1	4	3	3	3	2	0	0	162	50	78	120	60	2	1.22
927	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	34	4	2	2	2	2	2	2	0	0	1	4	1	0	0	4	0	0	165	61	76	125	96	2	2.77
928	2	1	1	16	22000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	28	5	2	2	2	2	2	1	0	0	0	1	1	1	1	0	1	1	157	51	76	110	70	2	3.22
929	2	1	1	16	4000	4	2	2	2	1	2	2	2	2	2	2	1	2	1	2	2	1	1	14	30	3	2	2	3	2	2	2	1	0	3	0	2	4	0	0	2	3	153	64	64	87	70	2	2.46
930	2	1	1	16	10000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	2	1	3	3	2	1	0	0	0	0	4	0	1	0	0	0	155	48	99	110	70	2	1
931	2	1	1	16	16000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	1	12	25	5	2	2	3	2	2	1	1	0	2	2	1	2	2	0	0	0	154	40	80	100	60	2	1.26
932	2	1	1	16	10000	4	2	1	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	180	30	2	1	3	2	2	3	1	0	2	1	2	1	0	0	1	0	150	34	87	100	70	2	1.58
933	2	1	1	16	7500	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	7	1	2	3	2	2	3	2	0	2	2	0	4	0	1	0	2	146	39	100	109	68	2	3.9
934	2	1	1	16	5000	4	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	13	30	5	2	2	3	2	2	1	0	1	0	2	0	2	0	0	4	0	163	76	58	110	60	1	1.38
935	2	1	1	16	7000	4	1	2	1	1	2	2	2	2	2	2	1	2	2	2	1	2	2	14	29	5	2	2	2	2	2	1	3	4	4	3	4	3	2	3	4	3	153	44	76	110	76	1	6.36
936	2	1	1	15	10000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	4	2	2	2	2	2	3	0	0	0	3	3	3	2	0	1	3	154	51	76	110	64	2	3.65
937	2	1	1	15	5000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	28	4	2	2	2	2	2	1	4	2	0	2	4	2	1	0	3	0	158	44	90	110	70	2	1.19
938	2	1	1	16	5000	3	2	1	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	7	2	2	3	2	2	1	2	1	1	1	2	3	0	1	1	3	158	47	96	92	73	2	1
939	2	1	1	16	5000	5	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	28	5	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	151	58	90	120	74	1	70.94
940	2	1	1	16	2000	5	2	1	1	2	2	2	2	2	1	2	2	2	2	1	2	2	2	14	30	5	2	2	2	2	2	3	1	1	1	1	0	0	1	1	1	0	149	53	84	100	60	2	2.23
941	2	1	1	16	120000	4	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	30	5	2	2	2	2	2	2	1	0	1	3	4	2	0	0	3	0	155	35	70	90	60	2	1.14
942	2	1	1	15	2500	4	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	1	2	13	27	5	2	2	3	2	2	1	2	0	2	1	1	4	3	1	3	2	162	55	74	130	70	2	1.91
943	2	1	1	15	6000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	12	29	3	2	2	2	2	2	2	2	0	0	0	2	2	4	0	1	1	155	38	94	120	70	2	1.68
944	2	1	1	16	7000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	3	2	2	1	2	0	1	2	1	4	0	0	4	1	163	40	76	100	60	2	1.87
945	2	1	1	16	4500	4	1	2	1	1	1	2	2	2	2	2	1	2	2	2	1	2	2	13	60	6	1	1	3	2	2	3	0	0	2	0	4	4	2	0	0	0	151	43	120	96	71	2	2.25
946	2	1	1	15	8000	4	2	2	1	2	1	2	2	2	2	1	1	2	2	2	1	2	2	13	30	5	1	1	3	3	2	1	2	4	1	3	2	2	2	1	1	3	159	44	98	120	70	2	1.81
947	2	1	1	15	8000	4	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	1	2	14	28	6	1	2	2	2	2	1	1	0	1	4	3	2	0	0	0	2	161	43	88	110	60	2	1.68
948	2	1	1	15	3000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	30	7	1	2	2	2	2	1	0	0	0	2	2	2	0	3	0	0	149	36	100	110	80	2	1.27
949	2	1	1	16	1500	4	1	2	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	4	2	2	3	2	2	1	2	2	1	4	4	2	2	2	4	3	155	44	100	110	70	2	2.9
950	2	1	1	16	4000	5	2	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	2	14	30	5	2	2	1	2	2	2	1	0	2	3	4	2	1	2	0	0	156	42	100	124	74	2	1.03
951	2	1	1	15	3000	3	1	2	2	2	1	2	2	1	2	2	2	2	2	2	1	1	2	15	30	7	1	2	3	2	2	2	2	1	0	0	0	0	2	0	0	0	151	31	76	90	60	2	3.41
952	2	1	1	15	12000	4	2	2	2	2	2	1	2	2	2	1	1	2	2	2	1	2	2	13	30	7	1	2	1	2	2	1	2	2	2	3	2	2	1	2	2	2	164	67	94	110	90	1	95.66
953	2	1	1	15	3000	5	1	2	2	2	1	2	2	2	2	2	1	1	2	2	2	2	1	11	30	7	1	2	3	2	2	1	0	0	0	1	4	4	0	0	2	0	161	45	100	110	65	2	2.64
954	2	1	1	16	29000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	30	5	2	2	3	2	2	2	0	2	1	3	1	1	4	0	1	1	156	45	84	100	70	2	2.65
955	2	1	1	16	22000	5	2	1	2	1	2	2	2	2	2	2	2	2	2	1	2	2	2	12	25	3	2	2	3	2	2	1	2	0	0	1	1	0	1	2	2	0	146	60	60	100	60	2	6.1
956	2	1	1	16	5000	5	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	28	5	2	2	2	2	2	3	1	2	2	1	2	0	0	0	1	2	163	65	95	120	80	2	2.28
957	2	1	1	15	20000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	12	20	5	1	2	3	2	2	2	1	0	0	1	2	2	0	1	2	0	154	67	74	120	80	2	1.96
958	2	1	1	15	20000	6	2	2	1	1	2	2	2	2	1	2	2	2	2	2	2	2	2	12	555	5	2	2	3	3	2	3	1	2	1	1	0	2	1	1	2	1	153	41	106	110	80	2	0.82
959	2	1	1	15	6000	7	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	26	5	2	2	3	2	2	2	2	1	3	3	4	4	2	2	0	4	154	45	70	110	60	2	1.76
960	2	1	1	15	3000	6	1	2	2	1	2	2	2	2	1	1	1	2	2	2	2	2	2	13	50	5	2	2	3	2	2	2	0	0	2	3	2	1	1	0	3	2	153	42	90	110	84	2	0.34
961	2	1	1	16	7000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	14	30	5	2	2	3	2	2	1	0	0	0	0	0	0	1	0	0	0	153	36	86	120	70	2	0.86
962	2	1	1	16	5000	5	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	90	5	2	2	2	2	2	1	0	0	0	1	0	0	0	0	2	0	158	44	108	100	70	2	3.09
963	2	1	1	16	4000	3	1	2	2	2	2	2	2	1	1	1	2	2	2	2	2	1	1	12	25	5	2	2	2	2	2	1	0	0	0	0	1	2	0	0	0	0	145	45	98	120	70	1	2.12
964	2	1	1	16	4000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	12	30	5	2	2	2	2	2	3	0	0	0	3	3	3	2	0	3	2	159	40	78	90	60	2	1.41
965	2	1	1	16	9000	5	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	2	2	11	30	4	2	2	1	2	2	1	1	0	2	0	0	0	1	0	0	1	145	58	61	110	90	2	2.29
966	2	1	1	16	7000	4	1	2	2	1	2	2	2	2	2	2	1	2	2	1	1	1	2	12	30	6	1	2	2	2	2	1	2	2	2	3	0	1	4	1	4	4	160	45	90	110	70	1	8.07
967	2	1	1	16	5000	5	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	13	28	5	2	2	3	2	2	1	2	1	1	3	0	3	1	2	2	1	146	41	92	100	70	2	3.29
968	2	1	1	16	4500	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	12	30	4	2	2	2	2	2	3	1	2	0	0	0	1	0	0	2	0	150	36	74	100	60	2	2.47
969	2	1	1	15	4000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	33	3	2	2	2	2	2	1	1	0	1	1	0	2	1	0	1	0	142	39	100	120	80	2	1.11
970	2	1	1	16	4000	3	2	2	2	2	2	2	2	2	1	2	1	2	2	1	2	2	1	14	60	5	2	2	2	2	2	3	1	2	0	0	0	1	0	0	1	0	151	41	97	80	60	2	2.43
971	2	1	1	15	3000	6	1	2	1	1	1	2	2	2	2	2	1	1	1	1	1	1	2	15	22	5	1	1	3	2	2	1	3	4	2	4	4	4	3	4	4	4	161	42	87	80	60	2	1.28

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
972	2	1	1	16	3000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	2	2	15	30	5	2	2	3	2	2	3	2	0	2	3	4	4	1	3	4	3	154	57	75	107	64	2	1.57
973	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	30	5	2	2	3	2	2	3	2	2	1	2	2	3	4	3	3	3	149	45	85	106	74	2	4.22
974	2	1	1	16	8000	6	1	1	1	2	2	2	1	2	2	2	1	2	2	1	1	1	1	16	40	6	1	2	3	3	2	1	2	1	4	3	2	4	2	3	4	3	150	49	82	110	70	2	2.4
975	2	1	1	15	5000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	12	20	6	1	2	3	2	2	3	1	2	1	2	3	0	0	0	1	0	162	43	60	110	70	2	1.27
976	2	1	1	16	2000	5	1	2	1	2	1	2	2	2	2	2	1	2	1	1	2	2	2	13	25	5	1	2	3	3	2	1	4	4	4	4	2	0	2	2	4	4	153	39	84	100	60	2	2.39
977	2	1	1	16	8000	6	1	2	2	2	1	2	2	2	2	2	1	2	2	2	1	1	1	14	60	8	1	2	3	2	2	1	0	0	1	0	0	2	0	0	0	0	153	40	93	90	70	2	1.55
978	2	1	1	17	4000	4	1	1	1	2	2	2	2	2	2	2	1	2	2	2	1	2	2	11	60	5	2	2	3	2	2	1	1	0	2	2	2	4	1	2	3	4	152	69	84	138	84	1	6.07
979	2	1	1	17	4000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	30	5	2	2	2	2	2	1	0	1	0	1	1	0	1	0	1	0	155	34	102	110	60	2	1.23
980	2	1	1	16	8000	4	2	2	1	2	1	2	1	2	2	2	2	2	2	2	2	1	2	14	28	5	2	2	3	2	2	3	1	1	2	3	4	1	0	1	3	3	158	45	62	94	60	2	1.69
981	2	1	1	16	8000	4	1	1	1	1	1	2	2	2	2	2	1	2	2	1	2	1	2	14	30	6	1	2	3	3	2	3	2	0	1	3	0	4	0	2	2	4	161	56	82	100	80	1	0.04
982	2	1	1	16	10000	4	1	2	1	1	2	2	2	2	2	1	1	2	1	2	1	1	2	13	35	5	2	2	3	2	2	1	4	3	3	2	2	3	1	2	4	4	146	35	91	104	60	2	1.55
983	2	1	1	16	10000	4	2	2	1	2	1	2	2	2	2	2	1	2	2	1	2	2	2	13	22	4	2	2	3	2	2	3	0	0	0	0	0	0	0	0	0	0	163	52	98	102	54	2	1.03
984	2	1	1	15	22000	4	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	2	2	666	666	666	666	2	3	2	2	3	0	2	0	4	4	3	0	2	3	1	147	35	72	140	90	2	2.17
985	2	1	1	15	8000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	12	26	4	2	2	3	3	2	3	3	4	1	0	0	0	0	1	2	0	155	44	90	110	70	2	2.54
986	2	1	1	16	3000	4	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	30	3	2	2	2	2	2	2	2	4	4	4	3	4	4	4	4	4	153	40	86	110	70	2	1.62
987	2	1	1	16	20000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	0	0	2	3	2	2	0	2	3	0	154	39	100	120	70	2	7.02
988	2	1	1	15	4500	4	1	2	2	1	2	2	2	2	1	2	1	2	2	2	2	1	1	12	31	7	1	2	1	2	2	1	2	1	2	0	0	1	0	0	0	0	159	45	94	130	84	2	2.24
989	2	1	1	15	15000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	26	5	2	2	3	2	2	1	2	4	0	0	0	0	0	1	2	1	153	50	78	110	70	2	3.01
990	2	1	1	16	5000	4	1	2	1	2	2	2	2	2	2	2	1	2	2	1	2	2	1	13	29	3	2	2	2	2	2	2	4	2	2	4	2	3	2	2	3	4	156	44	114	108	77	2	0.54
991	2	1	1	16	7000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	11	28	5	2	2	3	2	2	1	3	2	4	2	0	1	3	3	2	2	152	69	100	130	70	2	3.9
992	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	12	30	4	2	2	2	2	2	1	1	0	0	0	0	1	0	0	1	2	155	40	83	100	60	1	5.59
993	2	1	1	16	5000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	14	30	4	2	2	3	3	2	3	0	2	2	0	1	0	0	0	3	2	165	39	84	120	90	2	1.36
994	2	1	1	16	6000	4	2	2	2	2	2	2	2	1	2	2	1	2	2	2	2	1	2	12	29	2	2	2	2	2	2	2	0	0	2	0	0	3	0	0	2	2	158	52	76	110	70	2	1.43
995	2	1	1	16	4000	4	2	2	1	2	2	2	2	2	1	2	2	1	1	1	1	1	1	13	30	3	3	2	2	1	2	1	3	1	2	3	3	3	4	3	0	3	155	43	87	107	66	2	0.59
996	2	1	1	16	5000	4	1	2	2	2	2	2	2	2	2	2	1	1	2	1	1	2	2	12	30	4	1	2	3	2	2	1	1	2	1	3	1	4	0	1	4	4	149	43	109	135	94	1	10.38
997	2	1	1	16	13500	5	2	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	12	28	5	2	2	2	2	2	1	0	0	0	2	2	2	0	3	0	0	169	74	90	110	60	2	2.58
998	2	1	1	16	3000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	13	28	4	2	2	2	2	2	1	2	0	3	2	3	0	3	3	0	3	154	45	72	120	74	2	2.11
999	2	1	1	16	6000	3	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	13	30	5	2	2	3	2	2	3	1	0	2	3	4	2	1	2	0	0	149	43	76	128	68	2	0.74
1000	2	1	1	15	5000	4	1	2	1	2	2	2	2	1	2	1	1	2	2	1	1	1	2	13	40	7	1	2	3	2	2	1	4	3	4	1	2	4	3	2	4	4	150	45	70	100	60	1	4.4
1001	2	1	1	16	3000	4	2	2	2	1	2	1	2	2	1	1	1	2	1	2	2	2	2	13	36	3	2	2	3	2	2	1	1	1	0	1	2	0	1	1	1	1	153	37	95	110	70	2	1.51
1002	2	1	1	15	4000	6	1	2	1	2	2	2	2	2	1	2	1	2	2	2	2	2	2	13	30	5	2	2	3	2	2	1	2	1	0	4	3	0	2	3	2	0	150	38	72	100	60	2	1.29
1003	2	1	1	15	12000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	155	51	104	120	74	2	2.07
1004	2	1	1	16	5000	4	1	1	2	2	2	1	2	2	1	1	1	1	2	2	1	1	2	12	28	5	2	1	3	3	2	1	1	2	3	3	0	0	4	4	4	3	164	75	108	110	70	2	1.39
1005	2	1	1	15	28000	4	2	1	2	2	2	2	2	2	1	2	1	2	2	1	2	2	2	12	20	4	2	2	2	2	2	1	3	1	4	4	1	2	3	4	0	0	156	45	84	108	64	2	2.51
1006	2	1	1	15	7000	5	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	5	2	2	2	2	2	1	0	0	2	3	2	2	1	0	2	1	159	41	110	90	60	2	1.64
1007	2	1	1	16	36000	4	2	2	2	2	1	2	2	2	1	1	1	2	1	1	1	2	2	13	30	5	2	1	3	2	2	1	1	0	2	4	4	1	0	0	3	4	166	49	82	120	90	2	1.85
1008	2	1	1	16	8000	4	1	1	2	2	1	2	1	2	2	1	1	1	2	2	2	1	1	12	30	5	1	2	2	2	2	1	1	2	4	4	0	4	0	1	4	4	163	36	88	140	77	2	3.83
1009	2	1	1	16	5000	4	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	1	1	12	30	3	2	2	3	3	2	3	1	0	2	1	0	1	2	0	3	2	151	45	84	110	70	2	1.1
1010	2	1	1	16	5000	4	2	2	1	2	2	2	2	2	2	2	1	2	1	1	2	2	2	12	40	9	1	1	2	2	2	1	2	1	2	3	3	1	1	1	3	1	164	46	96	110	80	2	3.81
1011	2	1	1	15	5000	5	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	13	25	5	2	2	2	2	2	2	2	0	1	3	1	2	0	0	0	0	150	39	60	116	76	1	7.72
1012	2	1	1	16	18000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	5	2	2	2	2	2	1	2	1	2	4	2	3	2	2	4	4	160	46	77	125	70	2	4.35
1013	2	1	1	15	36000	5	1	1	1	2	2	2	2	2	1	1	2	2	2	1	1	1	2	13	40	5	1	2	2	2	2	2	2	4	2	3	4	4	3	2	3	3	152	46	72	100	60	2	1.34
1014	2	1	1	15	3000	4	1	2	1	2	2	2	2	2	1	2	2	2	2	1	2	1	2	13	30	3	2	2	2	2	2	2	0	3	1	3	3	4	4	1	2	4	149	47	67	110	60	2	1.42
1015	2	1	1	15	3000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	13	30	5	2	2	2	2	2	1	2	1	3	0	0	1	1	0	3	2	147	45	84	110	60	1	3.88
1016	2	1	1	16	5000	4	2	2	1	2	1	2	2	2	1	1	1	2	2	1	2	1	1	13	30	4	2	2	3	3	2	3	1	0	2	1	0	1	2	0	1	2	151	31	86	120	80	2	1.25
1017	2	1	1	15	5000	4	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	1	2	12	25	5	2	1	3	2	2	1	2	0	2	1	1	4	3	1	3	2	150	41	86	130	100	2	2.82
1018	2	1	1	16	6000	6	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	20	6	1	2	2	2	2	3	1	2	0	0	0	1	0	0	1	0	150	56	90	100	70	1	4.21
1019	2	1	1	16	7000	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	13	30	4	2	2	2	2	2	1	1	1	0	1	1	0	1	0	1	0	149	45	88	100	62	2	1.35
1020	2	1	1	16	23000	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	35	5	2	2	3	2	2	1	1	0	2	1	1	1	0	1	1	1	159	44	84	120	70	2	3.15
1021	2	1	1	15	10000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	13	40	5	2	2	3	2	2	1	0	1	0	2	1	2	1	0	0	2	155	39	104	110	60	2	2.66
1022	2	1	1	15	3500	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	12	30	3	2	2	3	3	2	1	2	0	2	3	2	2	3	2	0	3	155	58	71	90	60	2	3.34
1023	2	1	1	16	3000	4	1	2	1	2	1	2	2	2	2	2	1	2	2	2	2	1	2	13	35	6	1	2	2	3	2	3	2	2	1	1	0	1	1	0	4	3	151	48	85	113	58	1	21.98
1024	2	1	1	16	6000	5	1	1	2	2	1	2	2	2	1	1	1	2	1	2	1	1	2	13	30	7	1	2	3	3	2	1	2	1	2	1	3	2	1	2	1	2	158	55	75	114	84	1	3.94
1025	2	1	1	16	5000	4	2	2	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	12	90	4	2	2	2	2	2	2	1	0	2	0	3	0	2	0	3	2	163	46	84	100	54	2	1.38

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
1026	2	1	1	15	12000	5	1	2	2	1	1	2	2	2	1	1	1	2	2	1	1	2	1	13	30	5	2	2	2	2	2	3	2	3	3	2	1	4	3	1	1	1	159	40	116	99	66	2	1.9
1027	2	1	1	16	12000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	25	4	2	2	3	2	2	1	1	1	1	0	0	0	1	1	2	0	154	51	76	90	70	1	4.95
1028	2	1	1	16	10000	4	2	1	2	2	1	2	2	2	2	1	1	1	2	1	1	1	2	13	30	7	1	2	1	2	2	1	4	3	4	1	0	0	1	0	3	4	161	69	90	120	70	2	2.04
1029	2	1	1	17	34000	5	1	2	2	2	1	2	2	2	2	2	2	1	2	1	2	2	2	12	30	4	2	2	2	2	2	1	3	2	1	2	3	3	4	2	3	0	155	42	91	104	67	2	2.12
1030	2	1	1	17	2500	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	27	4	2	2	2	2	2	1	1	2	2	2	2	3	2	1	2	2	146	37	104	110	65	2	1.25
1031	2	1	1	15	10000	5	1	2	2	2	1	2	2	2	1	1	1	1	1	1	1	1	1	13	27	3	2	2	2	2	2	2	3	0	1	2	0	4	0	2	1	0	152	27	88	120	70	2	1.93
1032	2	1	1	17	5000	4	1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	13	28	5	2	2	2	2	2	1	2	2	1	3	3	4	1	4	2	4	149	44	70	104	65	1	6.16
1033	2	1	1	17	3600	5	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	1	1	14	25	3	2	2	1	1	1	3	4	4	2	3	2	2	2	0	3	2	148	44	96	123	80	1	12.97
1034	2	1	1	15	6000	5	1	1	1	1	1	2	2	2	2	2	1	2	2	2	2	1	1	12	27	6	1	2	3	1	1	1	1	1	1	1	2	2	2	2	1	4	156	46	76	114	60	1	0.28
1035	2	1	1	15	4000	4	1	2	2	2	1	2	2	2	1	2	2	1	1	2	1	1	1	12	24	4	2	2	2	2	2	1	1	4	0	2	1	0	0	3	2	3	157	44	110	130	90	2	2.24
1036	2	1	1	17	43000	6	1	2	1	2	1	2	2	2	2	2	1	1	1	1	1	2	1	16	21	4	2	2	2	2	2	2	2	3	4	0	1	3	0	1	4	4	147	36	87	110	70	2	1.91
1037	2	1	1	17	4200	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	14	30	4	2	2	2	2	2	1	1	4	4	2	1	1	2	2	4	2	151	40	100	115	74	2	1.42
1038	2	1	1	16	2000	6	1	1	2	1	1	2	1	1	1	1	1	2	1	1	1	1	2	13	25	5	2	2	3	2	2	2	1	4	4	3	3	2	1	3	4	4	157	54	97	115	74	2	2.19
1039	2	1	1	16	12500	4	1	1	1	1	2	2	2	1	1	2	2	2	2	1	1	2	2	13	20	5	1	2	2	2	2	1	2	3	0	1	4	0	4	3	4	4	159	50	84	114	64	2	0.8
1040	2	1	1	15	10000	5	1	2	2	2	1	2	2	2	2	1	1	1	2	1	1	2	1	13	555	10	2	2	3	2	2	3	2	1	4	4	3	4	2	3	3	2	148	39	88	110	60	2	1.3
1041	2	1	1	15	7000	5	2	2	2	2	2	2	2	2	2	1	2	1	2	1	2	2	2	12	30	6	1	2	3	2	2	2	2	2	0	3	2	2	3	1	3	2	158	42	66	110	53	2	1.8
1042	2	1	1	16	3000	4	2	2	2	2	2	2	2	2	2	2	1	2	1	1	1	2	2	14	555	555	2	1	2	2	2	3	2	1	1	1	1	2	1	1	2	1	154	36	63	90	56	1	0.27
1043	2	1	1	16	8000	4	1	2	1	2	2	2	2	2	2	1	2	2	1	2	2	2	2	11	40	3	2	2	2	2	2	2	1	0	0	1	0	0	0	0	0	1	166	36	94	104	66	2	1.66
1044	2	1	1	16	5000	3	1	2	2	2	2	2	2	2	2	2	1	2	1	1	2	2	2	13	30	5	2	2	3	2	2	2	4	4	0	2	2	3	2	2	3	4	153	30	86	110	70	2	1.66
1045	2	1	1	15	13800	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	30	5	2	2	2	2	2	2	4	3	2	1	2	4	3	2	4	3	149	31	108	110	80	2	2.63
1046	2	1	1	15	12000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1	13	30	5	2	2	1	2	2	1	1	0	1	2	1	4	1	2	0	4	162	55	104	107	76	2	2.01
1047	2	1	1	16	14000	5	1	2	1	1	1	2	2	2	1	1	1	2	2	1	1	1	1	14	29	6	1	2	2	2	2	3	1	1	1	4	1	4	1	4	1	0	148	34	90	108	68	2	0.63
1048	2	1	1	16	20000	5	1	2	1	2	2	2	2	2	1	1	1	2	1	1	1	2	1	13	28	6	1	2	3	2	2	1	0	1	2	3	1	1	2	0	2	2	157	41	102	114	65	2	1.74
1049	2	1	1	16	16000	4	2	2	2	1	2	2	2	2	2	2	1	2	1	2	1	1	2	12	29	6	1	2	3	2	2	1	4	2	1	1	1	3	1	4	4	0	164	45	75	110	63	2	1.43
1050	2	1	1	15	5400	5	2	2	2	2	2	2	2	2	2	1	1	1	2	1	1	1	2	11	27	4	2	2	3	2	2	1	4	4	4	3	3	4	2	4	3	3	152	50	75	116	88	2	1.07
1051	2	1	1	17	7000	4	1	1	2	2	1	2	2	2	2	1	2	2	2	1	2	2	2	12	28	4	2	2	2	2	2	1	1	1	2	2	1	3	1	2	2	3	156	56	100	123	84	2	1.19
1052	2	1	1	17	12000	5	1	2	2	2	1	2	2	2	2	1	1	2	2	1	2	2	2	11	25	4	1	2	2	2	2	1	1	4	2	0	4	3	4	2	4	4	153	40	90	110	81	1	1.96
1053	2	1	1	15	24000	6	1	2	2	1	2	2	2	2	2	1	2	2	2	2	2	1	1	12	30	4	2	1	3	2	2	1	3	2	3	2	1	2	1	1	2	3	156	43	90	100	70	2	2.47
1054	2	1	1	16	5000	4	1	2	1	1	1	2	2	2	2	2	1	2	2	2	1	1	1	15	30	3	2	2	3	2	2	1	2	2	3	3	2	4	2	4	4	4	154	38	91	118	70	2	1.9
1055	2	1	1	15	18000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	13	28	5	2	2	3	2	2	1	1	0	1	2	3	0	1	2	1	2	146	30	76	90	56	2	1.12
1056	2	1	1	15	14000	5	1	2	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	13	30	5	1	2	3	2	2	2	1	0	2	3	1	4	4	1	0	4	158	40	114	130	80	1	2.54
1057	2	1	1	16	5000	4	2	2	2	2	1	2	2	2	1	2	1	2	2	1	2	1	2	14	25	3	1	2	2	2	2	3	1	2	1	2	3	2	1	2	3	2	150	39	102	104	68	2	2.79
1058	2	1	1	15	1500	4	1	1	1	2	2	2	2	2	1	1	1	2	2	1	2	1	1	10	30	4	2	2	2	2	2	3	2	0	2	3	2	4	3	2	0	4	154	43	96	140	70	2	0.64
1059	2	1	1	16	5000	3	1	2	2	2	1	2	2	2	2	1	1	1	1	2	2	1	1	14	28	3	2	2	3	2	2	1	2	0	1	2	0	2	2	0	3	1	155	39	92	112	68	2	2.99
1060	2	1	1	17	8000	3	2	2	1	2	2	2	2	2	1	2	1	2	2	1	1	1	1	11	30	5	2	1	3	2	2	2	3	4	3	4	4	3	2	2	3	4	155	43	80	114	78	2	2.13
1061	2	1	1	16	6000	4	1	1	1	1	2	2	2	2	2	1	1	2	2	1	1	1	2	13	20	5	2	2	3	2	2	1	2	3	2	2	4	2	4	3	3	4	161	44	72	106	68	2	0.53
1062	2	1	1	17	25000	4	1	2	1	2	1	2	2	2	1	2	1	2	1	1	2	1	1	14	30	3	2	2	3	2	2	1	1	0	1	2	4	4	1	2	0	3	150	40	104	114	70	2	1.51
1063	2	1	1	17	11000	4	1	1	1	1	1	2	2	2	2	1	1	2	2	1	1	2	2	13	555	10	1	1	3	3	2	3	3	2	4	2	4	3	1	3	4	2	145	39	62	107	68	2	1.69
1064	2	1	1	15	6000	4	2	1	2	2	1	2	2	1	1	2	1	2	1	2	2	1	2	13	50	5	1	2	3	2	2	1	4	2	3	2	1	2	2	2	2	3	155	48	92	110	70	2	0.98
1065	2	1	1	15	4000	5	1	2	2	2	1	2	2	1	2	1	2	2	2	1	1	1	1	12	30	5	2	2	3	2	2	1	0	1	1	1	2	1	0	1	0	1	156	44	98	123	70	2	1.36
1066	2	1	1	15	10000	4	2	2	2	2	2	2	2	1	1	2	2	2	2	1	2	1	2	12	35	5	2	2	2	2	2	1	1	1	1	2	1	2	2	1	1	1	160	45	84	130	90	1	0.64
1067	2	1	1	15	8000	4	1	2	1	2	1	1	1	2	1	2	1	2	2	2	1	1	1	13	30	3	2	2	1	2	2	1	4	3	4	1	3	2	1	3	4	4	156	39	78	100	63	2	0.94
1068	2	1	1	16	14500	4	1	2	1	2	1	2	1	1	1	2	1	2	1	2	2	2	2	14	30	5	2	2	2	2	2	2	3	3	1	1	4	4	0	0	2	4	148	31	88	100	60	2	1.65
1069	2	1	1	16	8000	8	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	1	2	14	30	4	2	2	3	2	2	2	0	0	0	4	4	1	1	0	0	2	150	34	101	118	67	2	3.24
1070	2	1	1	16	6000	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	12	30	5	2	2	3	2	2	3	0	1	0	4	3	2	1	1	2	2	152	55	72	120	65	2	2.24
1071	2	1	1	16	8000	5	2	2	1	1	2	2	1	2	2	1	1	2	2	1	2	1	1	12	60	10	1	1	2	2	2	1	3	1	1	3	4	3	3	2	4	3	156	46	71	113	68	2	0.62
1072	2	1	1	15	12000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	4	2	2	3	3	2	1	2	2	2	4	1	2	3	1	3	2	146	34	90	90	60	2	1.25
1073	2	1	1	16	10000	6	1	2	1	2	2	2	2	2	1	1	1	2	2	1	1	1	1	11	20	6	1	1	2	2	2	3	1	1	2	4	0	4	1	4	2	0	158	46	119	127	84	1	0.95
1074	2	1	1	16	8000	5	2	2	2	2	2	2	2	1	2	2	1	2	2	1	2	1	1	13	60	5	2	2	2	2	2	3	1	0	0	2	2	2	1	1	0	0	155	45	72	100	67	1	0.18
1075	2	1	1	17	7000	4	1	1	2	2	1	1	1	2	2	1	2	1	2	1	1	1	1	12	60	7	1	1	1	2	2	1	2	0	1	1	1	1	3	4	1	2	153	60	63	105	70	2	2.12
1076	2	1	1	16	30000	4	1	1	1	1	1	2	2	1	2	1	1	2	2	1	1	2	1	13	30	5	2	2	3	1	2	1	2	1	2	3	2	4	3	3	4	4	158	70	88	120	64	1	6.12
1077	2	1	1	15	5000	5	1	2	1	2	1	2	2	2	2	1	1	2	2	2	1	1	1	14	40	5	1	2	3	2	2	1	4	4	3	3	4	2	3	3	1	0	154	40	82	117	62	2	2.08
1078	2	1	1	16	4000	5	1	1	1	2	1	2	2	1	1	1	1	2	2	1	2	2	2	13	555	1	2	1	3	2	2	1	4	4	0	0	0	4	0	4	3	4	148	50	85	115	71	2	2.05
1079	2	1	1	15	3000	4	2	2	2	2	1	2	2	2	2	1	2	2	2	1	2	2	1	12	30	4	2	2	1	3	2	1	1	2	3	4	0	3	2	0	3	0	154	48	84	98	62	2	1.06

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
1080	2	1	1	15	20000	4	1	2	1	1	2	2	2	2	2	1	2	2	1	2	1	2	1	12	19	5	2	1	2	2	2	1	1	0	2	0	3	2	2	0	1	1	153	40	79	103	62	2	0.85
1081	2	1	1	15	6000	4	1	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	1	13	24	5	2	2	3	2	2	2	0	2	2	1	4	3	2	2	3	2	145	35	89	90	60	2	1.77
1082	2	1	1	16	5000	5	1	2	1	2	2	2	2	2	2	2	1	2	2	1	2	1	2	15	90	5	1	2	1	2	2	1	2	3	2	2	2	2	1	1	2	4	156	42	100	90	58	1	1.49
1083	2	1	1	16	11000	5	2	2	2	2	1	2	2	2	2	2	2	2	2	1	2	1	2	14	30	3	2	2	3	2	2	1	2	1	2	3	4	1	2	3	2	2	157	50	85	120	75	2	1.78
1084	2	1	1	16	2000	7	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	13	28	5	2	2	3	2	2	1	4	2	2	4	0	0	0	0	4	4	148	36	76	95	55	2	1
1085	2	1	1	17	3000	4	1	2	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2	15	90	3	2	2	3	2	2	3	2	1	1	1	2	3	1	1	2	3	166	56	65	120	70	1	0.01
1086	2	1	1	16	7500	4	2	2	2	2	2	2	2	1	1	2	1	2	2	1	1	1	1	13	60	3	2	1	3	3	2	1	1	0	2	1	2	0	1	0	0	1	142	45	110	120	76	2	2.3
1087	2	1	1	17	11000	3	2	2	2	2	2	2	2	2	1	2	1	2	2	1	1	1	2	13	30	6	1	2	3	2	2	1	2	1	3	4	1	4	0	2	4	3	150	44	81	118	80	2	1.3
1088	2	1	1	17	11000	4	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	2	14	50	4	2	2	3	2	2	3	2	1	0	1	3	4	1	2	2	4	171	60	63	88	74	2	0.6
1089	2	1	1	15	5000	4	2	2	2	2	1	2	2	2	2	1	1	2	2	2	2	2	2	12	20	4	2	2	2	2	2	1	3	1	2	2	3	2	3	3	4	3	148	35	80	95	60	2	1.23
1090	2	1	1	15	6000	6	2	1	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	13	25	7	1	2	3	2	2	1	1	2	1	2	3	3	2	1	2	3	166	55	110	140	100	1	2.27
1091	2	1	1	15	5000	5	1	2	1	1	1	2	2	2	1	1	1	2	1	1	1	1	2	666	666	666	666	2	3	2	2	1	4	1	3	0	0	4	3	0	3	4	137	24	112	90	60	2	2.2
1092	2	1	1	15	7000	4	2	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2	1	13	30	5	2	2	3	2	2	1	4	1	3	3	2	3	4	0	3	4	155	49	93	113	63	2	1.18
1093	2	1	1	17	6000	4	1	2	2	2	1	2	2	2	2	2	1	2	1	2	2	1	2	12	30	4	1	1	3	3	2	2	0	2	2	4	0	0	1	0	2	0	146	39	72	96	54	2	2.08
1094	2	1	1	16	6000	4	1	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	12	30	5	2	2	1	2	2	3	3	3	4	1	2	3	1	3	4	4	157	41	99	120	64	2	1.81
1095	2	1	1	16	8000	5	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	11	30	3	2	2	3	2	2	3	0	0	0	4	4	2	1	1	0	2	150	45	98	117	70	1	1.85
1096	2	1	1	17	5000	12	1	1	2	2	1	2	2	2	2	1	1	1	2	2	1	2	2	13	30	6	1	2	3	2	2	1	0	0	2	4	0	4	2	1	1	4	148	42	72	98	55	1	2.19
1097	2	1	1	16	25000	4	1	2	2	1	2	2	2	2	2	2	2	2	1	1	1	2	1	12	29	4	1	1	2	2	2	3	0	1	0	2	0	1	1	0	2	0	154	47	91	101	61	2	2.02
1098	2	1	1	17	8000	6	1	2	1	2	1	1	1	2	2	1	2	1	1	1	1	2	1	12	30	4	2	2	3	2	2	1	4	1	2	1	4	4	2	3	4	4	162	43	73	107	64	2	1.14
1099	2	1	1	16	8000	4	2	2	1	1	2	2	2	1	2	2	1	2	2	1	2	2	1	12	32	5	2	2	2	2	2	1	2	0	2	1	3	3	0	2	1	0	145	36	97	120	85	2	0.44
1100	2	1	1	16	6000	6	1	1	2	2	2	2	2	2	2	1	1	1	2	2	1	1	1	13	45	2	2	2	2	2	2	1	3	2	3	0	0	3	0	0	4	4	153	44	74	100	60	2	1.94
1101	2	1	1	15	51000	6	1	1	2	1	1	2	1	1	2	1	2	2	2	1	1	1	1	11	30	4	2	2	3	2	2	1	4	4	4	3	3	4	1	4	4	4	154	44	79	106	59	2	2.16
1102	2	1	1	15	20000	6	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	14	30	5	2	2	2	2	2	1	1	1	2	3	3	3	0	4	0	1	162	40	84	96	56	2	2.49
1103	2	1	1	15	30000	5	1	2	1	2	2	2	2	2	1	1	1	2	2	1	1	2	1	13	30	7	1	2	2	3	2	1	1	0	0	1	2	4	0	0	2	4	151	41	78	118	71	2	1.14
1104	2	1	1	15	32000	5	1	2	1	2	1	1	1	2	1	1	1	2	1	1	1	1	1	666	666	666	666	2	3	2	2	1	2	0	1	4	2	3	0	2	0	3	152	39	79	106	67	2	1.92
1105	2	1	1	17	5000	5	1	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	12	30	2	1	2	2	2	2	2	2	2	0	3	2	0	2	2	4	4	153	40	82	113	75	2	1.62
1106	2	1	1	15	7000	4	2	2	2	2	1	2	2	1	2	2	2	1	1	1	2	2	1	11	30	3	2	2	3	2	2	1	0	1	1	1	2	3	1	2	1	3	159	49	93	127	74	2	2.72
1107	2	1	1	16	12000	4	2	2	1	2	2	1	2	2	1	1	2	2	2	1	2	2	1	13	555	3	2	2	3	2	2	1	1	1	2	3	1	3	1	2	3	3	159	40	91	117	77	1	0.44
1108	2	1	1	16	22000	4	2	2	1	2	2	2	2	2	1	1	2	2	1	1	1	2	2	13	555	2	2	2	3	2	2	1	2	1	0	2	0	4	1	3	1	4	139	34	88	120	80	1	1.32
1109	2	1	1	15	12000	4	2	2	2	2	2	2	1	2	2	1	2	2	2	1	2	1	1	13	15	3	2	2	3	2	2	1	2	1	4	2	3	2	3	1	2	4	153	35	112	116	75	2	3.33
1110	2	1	1	16	48000	5	1	2	2	2	1	1	2	2	2	1	1	1	2	1	2	2	2	12	30	5	1	2	3	2	2	1	4	3	1	2	4	3	4	2	3	4	151	35	82	92	59	2	3.53
1111	2	1	1	17	20000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	3	2	2	1	2	2	1	1	0	2	3	0	4	3	2	4	4	156	50	70	104	71	2	5.32
1112	2	1	1	16	4000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	28	4	2	2	2	2	2	1	4	2	2	2	1	2	2	1	2	4	150	30	98	119	72	2	0.71
1113	2	1	1	16	15000	4	2	2	2	2	1	2	2	2	2	2	2	2	2	1	2	2	1	13	30	4	2	2	2	2	2	1	2	0	0	2	3	1	3	0	2	3	147	39	78	107	68	2	1.28
1114	2	1	1	16	15000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	14	28	3	2	2	3	2	2	1	3	4	3	0	0	3	3	3	4	3	145	31	105	118	73	2	0.01
1115	2	1	1	17	4000	5	1	2	2	1	1	2	2	2	1	1	1	1	2	2	1	1	2	13	120	5	2	2	3	2	2	3	2	0	4	1	4	4	3	4	4	4	157	48	67	104	68	2	1.71
1116	2	1	1	16	2500	4	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	28	5	2	2	3	2	2	1	3	2	2	1	2	1	2	2	4	3	150	40	78	90	60	2	1
1117	2	1	1	15	5000	5	1	1	2	1	2	2	1	2	2	1	1	2	2	2	1	2	2	13	30	4	2	1	1	1	2	3	4	4	2	0	1	4	4	4	4	4	157	49	93	138	88	2	1.01
1118	2	1	1	15	30000	4	1	1	1	1	1	1	2	2	2	2	1	2	2	1	1	2	2	12	75	3	2	2	3	2	2	1	1	2	1	2	3	1	3	3	4	1	151	64	75	110	70	2	3.2
1119	2	1	1	15	8000	4	2	2	2	2	1	2	2	2	1	2	1	2	2	1	2	1	2	12	30	5	2	2	3	2	2	1	1	0	1	0	1	1	2	1	0	0	153	35	77	99	67	2	1.61
1120	2	1	1	15	10000	3	2	2	2	2	2	2	2	1	1	2	2	2	2	1	2	1	1	12	30	5	2	2	2	2	2	1	2	1	2	2	1	2	2	2	1	1	154	45	80	110	60	2	1.44
1121	2	1	1	16	8000	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	4	2	2	2	2	2	3	4	3	4	1	2	3	1	2	4	4	158	40	93	91	62	2	1.84
1122	2	1	1	15	10000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	30	5	2	2	2	2	2	3	1	1	0	3	0	4	0	0	1	0	176	64	78	133	66	2	1.1
1123	2	1	1	15	15000	4	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	11	25	7	1	2	3	3	2	3	2	4	0	3	4	4	2	3	1	3	152	43	86	117	64	2	2.91
1124	2	1	1	16	20000	3	1	1	2	2	1	2	2	2	2	1	1	2	1	1	2	2	2	11	32	4	1	2	3	2	2	1	4	3	4	2	1	4	1	3	4	4	160	45	80	100	60	2	1.16
1125	2	1	1	16	12000	4	1	2	1	2	2	2	2	2	1	1	2	1	2	1	2	1	2	12	90	3	1	2	2	2	2	1	3	1	1	3	1	4	1	1	4	4	155	35	86	118	73	1	12.02
1126	2	1	1	16	10000	6	1	2	2	2	2	2	2	2	2	1	1	2	1	1	2	2	1	14	28	5	2	2	3	2	2	3	2	3	2	4	2	3	3	2	4	3	159	46	77	118	65	2	0.88
1127	2	1	1	17	5000	4	1	1	1	2	1	2	2	2	2	1	2	2	2	1	2	2	2	13	30	4	2	2	3	2	2	3	4	2	3	4	0	4	4	3	4	4	155	51	89	102	63	2	0.86
1128	2	1	1	16	10000	5	1	2	2	1	1	2	2	2	1	2	1	2	1	1	1	1	2	13	30	5	2	2	3	1	2	1	3	4	4	4	2	1	4	4	4	4	147	34	125	114	70	2	1.1
1129	2	1	1	16	45000	5	1	2	2	2	1	2	2	2	1	1	2	1	1	1	1	1	2	12	30	3	2	2	3	2	2	1	3	2	3	4	2	4	3	2	3	4	149	34	91	97	65	2	0.55
1130	2	1	1	17	3000	4	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	14	31	5	2	2	3	2	2	1	1	2	1	3	1	2	0	1	2	2	152	43	85	100	61	2	1.79
1131	2	1	1	15	48000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13	30	3	2	2	3	2	2	1	1	0	1	0	1	4	2	3	0	3	149	50	94	120	80	1	0.29
1132	2	1	1	16	8000	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	14	30	3	1	2	3	2	2	1	2	3	1	3	2	4	1	2	3	4	154	35	93	90	56	2	1.59
1133	2	1	1	15	2500	5	1	2	1	1	1	2	2	2	1	2	2	2	2	1	1	1	1	13	22	7	1	2	3	2	2	2	3	1	3	0	2	0	1	1	2	4	152	44	92	110	60	2	1.16

S_No	Locality	Landscape	Type of Educational Institute	Age	Total Income of Family	Total family members	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Height	weight	Pulse_rate	SBP	DBP	Goitre	TSH Value
1134	2	1	1	16	28000	4	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	14	28	3	2	2	3	2	2	1	0	0	0	0	0	1	2	0	0	2	150	43	88	101	65	2	1.18
1135	2	1	1	15	14000	6	2	1	2	2	1	2	2	2	2	2	1	1	2	2	2	2	2	14	23	5	2	2	3	2	2	1	1	2	0	0	4	4	3	1	2	3	151	39	80	96	61	2	2.82
1136	2	1	1	17	10000	5	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	15	30	5	2	2	1	2	2	1	1	1	1	4	4	4	0	0	0	0	145	30	105	120	73	2	1.21
1137	2	1	1	17	3500	4	2	2	2	2	2	2	2	1	2	1	2	2	1	1	1	2	12	30	5	1	2	3	2	2	2	3	2	1	2	2	3	1	3	1	2	157	35	110	130	77	1	4.13
1138	2	1	1	17	4000	4	1	1	2	1	1	2	2	2	2	1	1	1	2	1	1	1	1	13	60	5	1	1	3	2	2	1	4	4	4	3	0	4	3	3	2	4	151	56	92	113	70	2	1.55
1139	2	1	1	15	10500	4	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	13	555	5	2	2	2	2	2	1	1	4	1	4	2	1	1	4	1	4	160	79	82	124	70	1	1.63
1140	2	1	1	15	25000	3	1	1	1	2	1	2	2	1	2	2	2	1	2	1	1	1	1	15	999	6	2	2	3	2	2	1	2	2	3	3	1	3	2	1	3	2	161	50	91	110	60	2	0.75
1141	2	1	1	16	9000	4	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2	2	12	30	5	2	2	3	2	2	1	0	0	0	1	1	0	0	1	0	0	151	35	77	117	75	2	0.44
1142	2	1	1	16	11000	5	1	2	1	2	1	2	1	2	2	1	1	2	1	1	1	1	2	12	30	5	1	1	2	2	2	2	4	3	4	3	0	2	2	3	3	4	148	30	93	90	54	2	1.13
1143	2	1	1	16	10000	5	2	2	2	2	1	2	2	2	2	1	2	2	2	2	1	2	2	11	30	6	1	2	2	2	2	2	0	0	2	4	0	4	2	1	0	4	150	48	77	98	63	2	3.88
1144	2	1	1	17	10000	5	2	2	2	2	1	2	2	2	2	1	1	2	2	2	1	2	2	12	30	6	1	2	3	2	2	1	0	0	2	4	0	4	2	1	0	4	149	41	83	124	76	2	2.31
1145	2	1	1	15	16000	6	2	2	1	2	2	2	2	2	1	2	1	2	1	2	2	2	2	12	28	5	2	1	3	2	2	1	0	0	0	0	1	1	0	1	0	0	151	33	82	110	70	2	1.49
1146	2	1	1	16	8000	6	1	1	1	2	1	1	1	2	1	2	2	2	2	2	2	2	2	15	28	4	2	2	2	2	2	2	2	2	2	2	4	3	2	0	1	1	155	45	84	100	70	1	0.46

KEYS TO MASTER CHART

1	S. No	Serial Number		
2	Locality		1	rural
			2	urban
3	Landscape		0	hilly
			1	plains
4	Type of Educational Institute		1	school
			2	college
5	Age of the participant			
6	Total income of the family			
7	Total family members			
8	A1	always feeling tired	1	yes
			2	no
9	A2	rapid weight gain	1	yes
			2	no
10	A3	decreased appetite	1	yes
			2	no
11	A4	muscle weakness, cramps	1	yes
			2	no
12	A5	excessive sleepiness	1	yes
			2	no
13	A6	difficulty in swallowing	1	yes
			2	no
14	A7	Hoarseness of voice	1	yes
			2	no
15	A8	Constipation	1	yes
			2	no
16	A9	Cold Intolerance	1	yes
			2	no
17	A10	Feeling low in mood	1	yes
			2	no
18	A11	Forgetfulness	1	yes
			2	no
19	B1	Excessive hunger	1	yes
			2	no
20	B2	Weight Loss	1	yes
			2	no
21	B3	Heat Intolerance	1	yes
			2	no
22	B4	Nervous / Irritable / Anxious	1	yes
			2	no

23	B5	Palpitation	1	yes
			2	no
24	B6	excessive sweatiing	1	yes
			2	no
25	C1	age at menarche	666	did not attain menarche
26	C2	frequency of menstruation	666	did not attain menarche
			999	just attained menarche
27	C3	duration of menstrual bleeding	666	did not attain menarche
28	C4	abnormally heavy bleeding	1	yes
			2	no
			666	did not attain menarche
29	C5	treatment for menstrual irregularities	1	yes
			2	no
30	D1	family history of thyroid diseases	1	yes
			2	no
			3	don’t know
31	D2	personal history of thyroid diseases	1	yes
			2	no
			3	don’t know
32	D3	under medication	1	yes
			2	no
33	D4	iodised salt for cooking	1	yes
			2	no
			3	don’t know
34	P1	Percieved stress scale item 1		
35	P2	Percieved stress scale item 2		
36	P3	Percieved stress scale item 3		
37	P4	Percieved stress scale item 4		
38	P5	Percieved stress scale item 5		
39	P6	Percieved stress scale item 6		
40	P7	Percieved stress scale item 7		
41	P8	Percieved stress scale item 8		
42	P9	Percieved stress scale item 9		
43	P10	Percieved stress scale item 10		
44	Height			
45	Weight			
46	Pulse Rate			
47	SBP	Systolic Blood Pressure		
48	DBP	Diastolic Blood Pressure		
49	Goitre		1	Present
			2	Absent
50	TSH value			